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UNIVERSITY OF ALBERTA

folio

Volume 40 Issue 17 **May 2, 2003**

http://www.ualberta.ca/folio

Gambling-related crimes under study

Institute digs for data on crimes

By **Phoebe Dey**

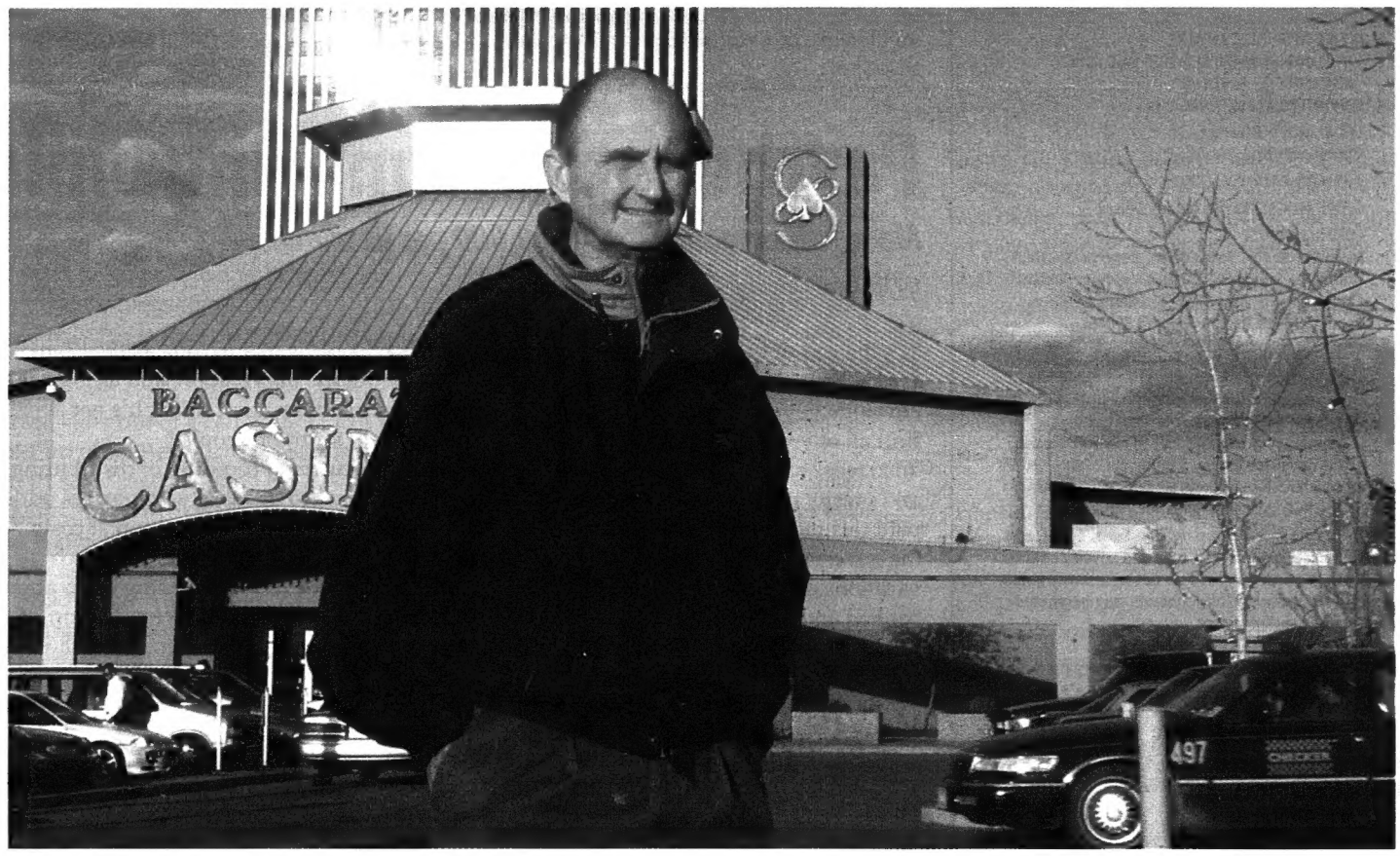
In gaming-friendly Alberta where people spend more on gambling than in any other province, enforcement agencies have recorded hundreds of gambling-related crimes, says a University of Alberta study that just scratches the surface of the illegal acts.

"This is just the tip of the iceberg," said Dr. Garry Smith, director of the U of A's Alberta Gaming Research Institute. "Our numbers are conservative but it is still important for people to be aware of the social and economic costs associated with gambling."

> "The province receives a lot of revenue for gambling which is increasing the workload for EPS and they should be compensated for that. We also need a much better way to collect data so people can see a full picture of the social and economic costs of gambling. This is just a start."
>
> – Dr. Garry Smith

Gambling-related crime refers to illegal gambling offences as defined by the Criminal Code of Canada, crimes such as forgery or fraud committed by problem gamblers to support a gambling addiction, crimes that occur at gambling venues and domestic abuse crimes precipitated by a family member's gambling involvement.

One of the assumed social costs of gambling is a higher crime rate, but no one had previously studied just how many and what type of gambling-related crimes occurred in the Edmonton area. Smith and his research team, which included the institute's Dr. Harold Wynne and Dr. Tim Hartnagel, reviewed data collected by the Edmonton Police Service (EPS) and the Alberta Gaming and Liquor Commission (AGLC) between January 2001 and July 2002 to identify crimes related to the gambling industry. They also interviewed key personnel and analysed EPS mapping services to assess crimes that occurred in areas of gambling venues.



Ryan Smith

Dr. Garry Smith, director of the U of A's Alberta Gaming Research Institute, says research on gambling-related crime has just scratched the surface.

"One of the first things we learned was that this study was harder to do than it sounds," said Smith. "There needs to be precise records kept in order to track this. If a police officer forgot to ask if the crime was gambling related or didn't record it in the files, we have no way of knowing about it. We have no way to know how significant the underreporting was."

Of the sample of files they saw, the researchers recorded 687 gambling-related crimes. The most frequent occurrences were for counterfeiting, followed by family disputes and fraud. "While counterfeiting may not be a terribly serious offence and is usually in small amounts, it is still a crime," said Smith, adding that people use counterfeit bills in gaming machines. "Fraud is also common…it's perpetrated by people who have gambling problems and will steal credit cards or pass bad cheques."

Of the 16 gambling-related family disputes, the researchers learned the following: one or both party's gambling addiction was the basis for 12 of the incidents; two disputes were attributed to who should control gambling winnings; and two were precipitated by males leaving their female companions at a bingo hall, forcing them to walk home.

Three suicides and one suicide attempt were gambling-related, said Smith, emphasizing that the actual number is likely much higher because it is difficult to always know whether gambling played a direct role in the death. The EPS data also included acts of robbery, assault and theft, all related to gambling.

The AGLC, which insures the integrity of gaming in the province, found cheating at play – scams occurring at casino tables or gambling machines – to be the most frequent crime. Gaming workers who failed to disclose prior criminal convictions was another common incident as was theft perpetrated by gaming workers. In two instances, poker dealers stole several hundred dollars worth of chips.

"I didn't really know what to expect for those illegal gambling numbers but it doesn't seem to be monitored as much as it should," said Smith.

The 111-page study not only gives the public a glimpse of gambling-related crimes, but it is also a useful document for the EPS to demonstrate how much of their time is spent responding to gambling-related crimes. "The province receives a lot of revenue for gambling which is increasing the workload for EPS and they should be compensated for that," said Smith. "We also need a much better way to collect data so people can see a full picture of the social and economic costs of gambling. This is just a start."■

Campus Campaign kicks off

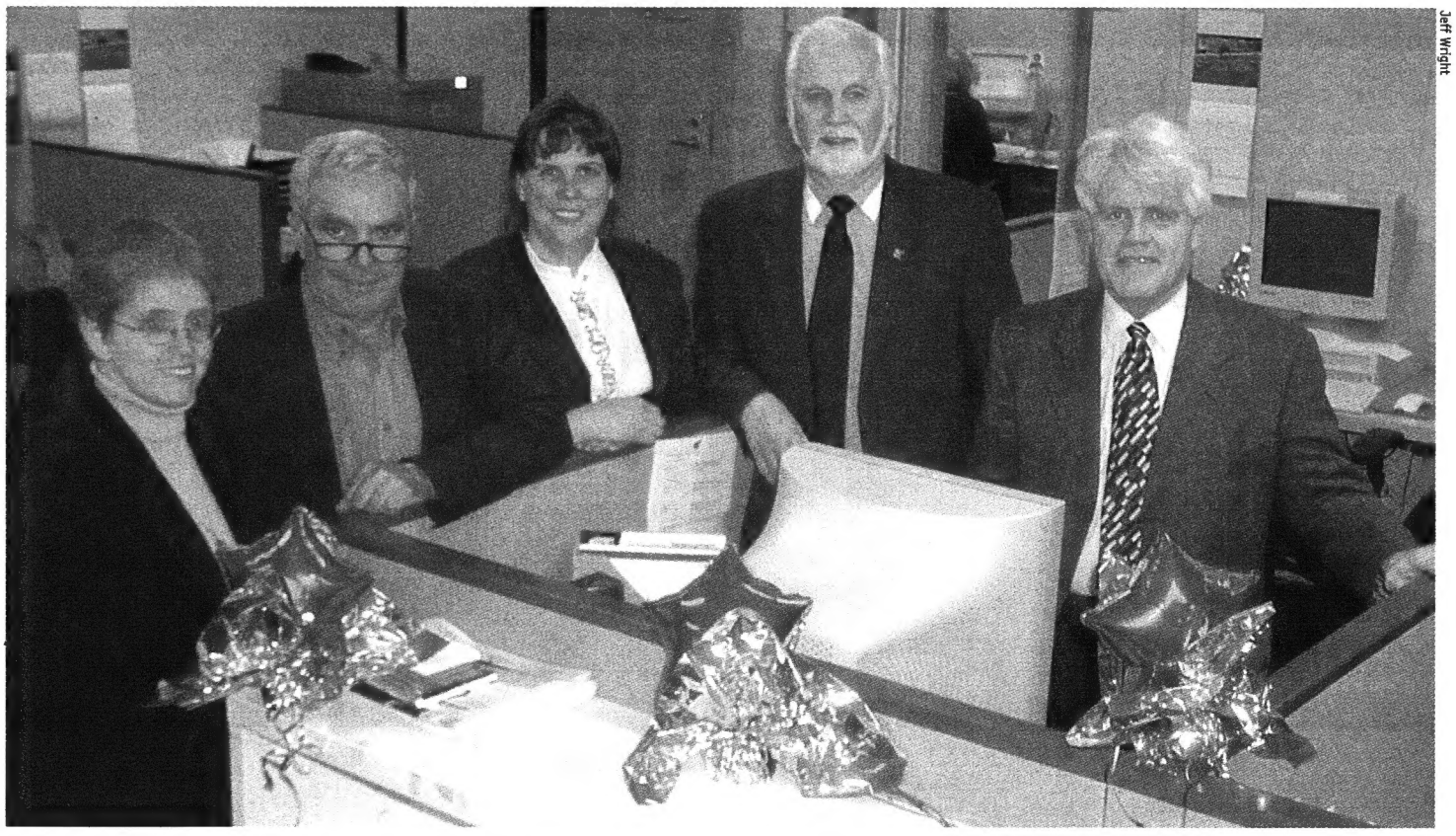
Focus is on access for students and increasing number of donors

By **Chelsea Clogg**

Over 150 University of Alberta faculty and staff donors were treated to barbecued hamburgers and a big thank you at the 2003 Campus Campaign Launch held at Dinwoodie Lounge recently. In her opening remarks, Susan Green, Vice-President (External Relations) expressed appreciation for the generous, ongoing gifts to the university. "Our personal contributions make a difference in the lives of our students," said Green. "They also demonstrate to the broader community that we, the people closest to the university's day-to-day operation and management and those in direct contact with our students, learners and researchers, place great value on the importance and accessibility of higher education."

The barbecue also served as a kick-off to the 2003 Campus Campaign that will run until the end of the year. The focus of this year's Campus Campaign is students and enhanced scholarship opportunities for those students.

"What our campaign is about is access. Access to our university. Access to those who have a strong desire to learn; that spirit to explore; that will to create; that commitment to invest themselves in our future," said Dr. Gerry Glassford, acting dean of the Faculty of Extension and co-chair of the Campus Campaign committee. The committee also includes Jeanette Buckingham, Dr. Ray Rajotte, Corinne Callihoo, Fran Trehearne and Dr. Roger Smith.



Jeff Wright

Jeanette Buckingham, Dr. Ray Rajotte, Corinne Callihoo, Dr. Gerry Glassford, Fran Trehearne and (missing) Dr. Roger Smith are serving as Campus Campaign co-chairs.

Glassford also reinforced the campaign message of commitment and spirit, and he urged faculty and staff to "not simply get involved" but to "make a commitment to this important campus-wide event." The Campus Campaign committee is hoping to secure 2,000 donors from the campus community. The goal represents an increase of over 600 donors from the last campaign in 1996-1997, which raised just over $2.1 million.

"This campaign is not necessarily about raising a set dollar figure. It is more about securing participation from our campus community," said Jeff Wright, Campus Campaign manager.

"The barbecue was a nice opportunity to visit with colleagues from across campus and to hear from a student about how receiving financial support had positively impacted her experience at the U of A," said Jami Drake, manager of alumni programs in the School of Business. "We're very fortunate to have a world-class university in Edmonton, with all the accompanying programs and benefits that provides to our community, so I'm happy to support the excellent work that takes place here."

To find out more about the Campus Campaign 2003, please contact any of the Campus Campaign co-chairs or Jeff Wright at 492-6765. ■

folio

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UNIVERSITY OF ALBERTA

The University of Alberta maintains a database of all alumni. This database is used to send you news about the U of A, including *Folio* and *New Trail*, invitations to special events and requests for support. On Sept. 1, 1999, post-secondary institutions were required to comply with the Freedom of Information and Protection of Privacy legislation of the province of Alberta. In accordance with this legislation, please respond to one of the following options:

❑ Please keep my name, or
❑ Remove my name from the *Folio* list.

Signature _____

No response means the University of Alberta assumes an individual wishes to remain on the mailing list.

Paycheque info moving online

Move will save university $60,000 per year

By **Richard Cairney**

It's the end of the month and there is something comforting about that pay envelope in your hands. Its contents confirm all of your vital financial information. You crease and tear along the dotted line and presto: it tells how much you've been paid this month, how much of it went to the government, how many vacations days you've got banked and where your pension contributions stand.

But by December, you're going to have to go online for that information, as the University of Alberta phases out its use of printed pay advice notices. The move, says Don Caplan, director of staff and student payments, will save the U of A about $60,000 a year in printing costs alone – not to mention being an environmentally friendly act.

"We're doing this piece by piece now – there are eight departments on this system now," said Caplan. "And over the summer we will be rolling it out to the faculties."

Caplan said costs, technology and demand are driving the move. "We've got an entire generation of people raised with computers saying 'what's all this paper for?' " He admits the use of technology is somewhat divisive. Other university employees feel more secure with paper in their hands – many resisted the move last year to eliminate printed pay cheques and move the entire payroll to automated deposits.

"The reaction we've been getting from most people is that as long as they can print out the information, and as long as it's secure, they don't mind. It's not a problem for most people."

"The reaction we've been getting from most people is that as long as they can print out the information, and as long as it's secure, they don't mind. It's not a problem for most people."

– Don Caplan

The current procedure of distributing pay advices to university employees adds up to an expensive proposition: it costs about $6 to print each advice, adding up to about $60,000 a year. On top of those expenses are the costs of two days a month spent sorting the envelopes and one day a month distributing them.

Caplan said he couldn't offer the same evidence of security that a sealed envelope provides, but says that online access to pay information will remain private. Access to the information will be similar to gaining access to bank accounts at an automated teller machine – after three failed attempts to get the password right the machine withholds your card. In the case of accessing pay information online, though, the computer repeatedly informs users to contact the system administrator after three failed efforts to access information.

"Even if you do get your password right on the fourth try," Caplan said, "you won't be able to get access to the information. There are a lot of security checks here – we are doing everything we can."

Caplan added that some employees might not have access to a computer at work or in their own homes. So his office is working with some departments to help them install kiosks that will allow employees to access their pay information. A kiosk has already been set up in the lobby of the Human Resources office at Assiniboia Hall.

The online pay records might be kept in a more orderly manner than many people handle themselves. The service will allow employees to view 14 months' worth of pay information online. And ultimately, the university hopes to offer faculty and staff the ability to go online and direct funds to certain banks or accounts.

Currently, that additional service seems a long way off – the university needs to work with banks to ensure such interactions can be handles securely. For now, Caplan says, the U of A's goal is to simply phase out the printed pay advices. "We want to offer more services but first we need to make sure it's going to go smoothly," he said. "Right now our first obligation is to get your money into your account on time and in the right amount."■

The freeze factor

The U of A's cryporeservation lab blends biology and physics

By **Sarah Boon**

Everyone has heard of Austin Powers, the movie character who was cryogenically frozen, then resuscitated three decades later with hilarious results. Drs. Janet Elliott and Locksley McGann, cryopreservationists at the University of Alberta, would be the first to assure you that freezing and resuscitating a human being is impossible, although the fascination with 'suspended animation' has been around for a long time.

Cryopreservation is used for freezing cells, often of blood and sperm. It can also be used for small tissues, such as islet cells, skin tissues, and heart valves. In the future, researchers hope to freeze corneas, cartilage, and bio-artificial (engineered) tissues. The University of Alberta's cryobiology research group, funded by the Natural Sciences and Engineering Research Council (NSERC) and Canadian Institutes for Health Research (CIHR), is the only such lab in Canada, and is a big player on the international scene.

"Canada is a cold country, so we should specialize in freezing things," jokes McGann, a biophysicist who was born in Jamaica. He and Elliott, a thermodynamics engineer, are part of a team planning a Centre for Biopreservation which will combine research into basic cryopreservation science with conceptual and experimental work. The centre will also foster continued collaboration with orthopaedic surgeons, neuroscientists, biodiversity specialists, and livestock scientists.

So just how do a biophysicist and a thermodynamics engineer get together to work on a complex problem like cryobiology?

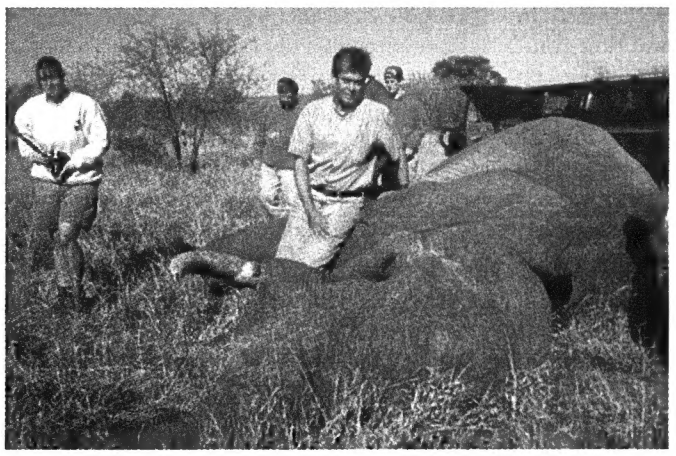
"We needed to determine the basic physical processes underlying cryobiology in order to advance the science, which required a thermodynamicist," said McGann, who has been working in cryobiology since the 1970s and is now with the Department of Laboratory Medicine and Pathology.

By chance, Elliott and McGann were seated next to one another at an engineering luncheon. A professor of chemical and materials engineering, Elliott has won several prestigious academic awards, including an NSERC Doctoral Prize. Voted one of six "Canadians who define the new frontiers of science" in the Canadian edition of Time Magazine, and a recipient of the Canadian Institute for Advanced Research's Young Explorers' Prize, she had precisely the expertise McGann was looking for. Their research relationship was cemented when they inherited a joint graduate student from a departing professor.

Five years later, their research has clarified the theory behind a variety of cell-freezing processes, and the applications of this for cryobiology are far-reaching. But they first had to establish some common ground.

Sarah Boon

Weekly meetings of professors and students help bridge the gap between phyiscs and biology, says Dr. Janet Elliott. "At the end of those meetings we always come out with one patentable idea and a paper idea," says Elliott. Clockwise from bottom centre:Dr. Locksley McGann, Richelle Bannerman, Heidi Elmoazzen, Lisa Ross-Rodriguez, Dr. Janet Elliott, and Anoop Poovadan.



Dr. Locksely McGann, left, worked in South Africa with the Smithsonian Institute, collecting animal sperm in an effort to preserve threatened and endangered species.

"The languages of biology and engineering are quite different," said Elliott. "Engineers are interested in finding global solutions to complex problems – for example, determining a single equation to describe heat transfer through several media. Biology is more observational and specific, describing what happens in a particular cell under certain conditions. We had to find a way to link these disciplines, which ultimately required that we be able to speak the same scientific language."

"We spend a lot of time talking," said McGann. "I describe the biophysical problem, and Janet determines how to address it using thermodynamics."

What exactly do these problems entail? "A mouse sperm cell is three times larger than an elephant sperm cell," said McGann, and such unexpected differences between cells result in a variety of responses to freezing.

One of the keys is the rate of cell cooling: fast cooling creates destructive ice crystals inside cells, while slow colling draws water out of a cell, leading to a fatal build up of solutes, such as salt, inside the cell. In some cases, cooling can be achieved without damage, but thawing the cells is much more difficult.

Using their unique combination of thermodynamics and biology, Elliott and McGann have created a computer model to simulate cell response to freezing. This allows them to test hypotheses before working with actual cells, making the research process more efficient, and providing critical insights into cell function.

The range of applications for cryopreserved materials is staggering.

"When I became a cryobiologist, the last thing I expected to be doing was keeping lionesses at bay with a spotlight while my colleagues handled a drugged lion!" said McGann, who worked in South Africa with the Smithsonian Institute, collecting animal sperm in an attempt to preserve threatened and endangered species such as lions, elephants, and water buffalo.

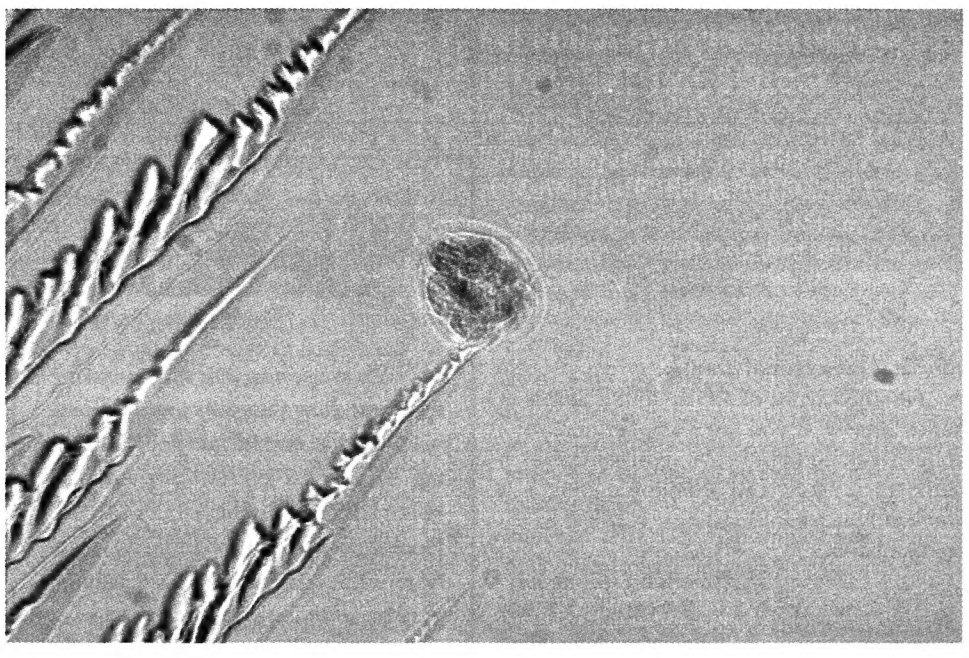
Freezing can also be used to preserve tissues, such as islet cells, for later transplant. It can also reduce animal testing in experiements, if frozen tissues rather than animals are available to researchers.

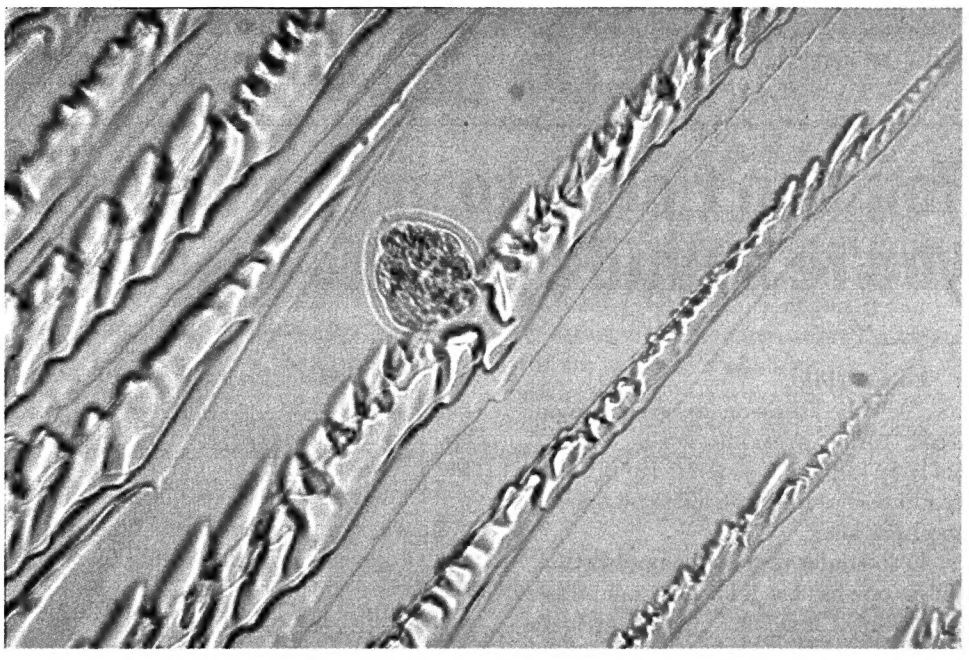
Frozen reproductive cells are also used in agriculture – a common practice in the cattle industry, but still under development for the pork industry.

Elliott and Locksley's collaboration has also produced many talented graduate students. The joining of two unlikely disciplines, along with the infectious enthusiasm of the research supervisors, has created a cutting-edge research group that is changing the way biologists think. Their students have won many awards and established distinguished academic careers, armed with valuable skills in both engineering and biology.

McGann and Elliott have also found unexpected rewards.

"With this research, I can make a contribution to biophysics in a way I couldn't in pure physics," said McGann. Elliott agrees. "In some cases, I was able to make a 30-per-cent improvement over previous cryobiological models – something I wouldn't be able to do in engineering," she said. "It's nice to be able to sit in your office and work out some equations, then have the results help a leukemia patient, or maintain global biodiversity." ■





Images show a mouse embryo prior to freezing (left) and after freezing (right).

opinion
guest column

A fond farewell

Career on campus lasted from typewriters to spreadsheets

By **Rosetta Bossio**

At the end of April I retired from the University of Alberta.

In 1965 I walked in a darkened University Hall to report for work (the lights were off to save energy). Intimidated by the reputation of this building, not only for its architectural beauty but also for what it represented in hierarchy, I waited nervously for someone to arrive. A gentleman came into the room and in a friendly tone said, "You must be the new stenographer from the typing pool." He showed me to a desk and typewriter, which was equipped with a double-width carriage to accommodate legal paper in landscape fashion. A sheet of legal paper containing endless columns of numbers with only a couple of spaces in between columns was already in the typewriter roll. I cringed. In those days the most boring and time-consuming jobs, which consisted of filing, typing of statistics and manuscripts, were destined for the typing pool. I later found out that the gentleman was the late University of Alberta President Walter H. Johns.

On the recommendation of the president's secretary, I was offered a permanent position in the Department of Sociology, which was located in a small white house next to Assiniboia Hall. It was affectionately called the Sociology Shack. To keep warm in the winter we wore heavy stockings and gloves. In the summer we kept cool by washing our faces in cold water and one particularly hot summer we bathed our feet in cold water. When the department was relocated to the Henry Marshall Tory Building we felt pampered, although some feared that, being the tallest building on campus and in the flight path of the Municipal Airport, it would be destined for disaster. I should mention three illustrious Sociology Graduate Students: Wayne McVey, Professor Emeritus; Rosalind Sydie, now Chair of Sociology; and Anne Marie Decore, retired Associate Vice-President (Academic), whose PhD thesis I typed. Since then I have also worked in the Faculties of Education and Business.

When I transferred back to the Faculty of Arts, it was an exciting time. The former Dean, Patricia Clements, was newly appointed. When former Chancellor Sandy Mactaggart emphasized that the university should be brought to the community, the Visiting Committee was created. Through this committee the Faculty inherited many dedicated supporters. The co-chairs of the first Visiting Committee for the Faculty were fourth-year student David Tupper (BA/LLB and a partner at Blake, Cassels and Graydon, LLP, Calgary) and Sheila Edwards (wife of Jim Edwards, Chair, Board of Governors). Some of the members were Bunny Ferguson (wife of Chancellor John Ferguson) who devoted many hours organizing the successful opening ceremonies of the Timms Centre; and the Honourable Lois Hole, whose accomplishments, not only for the Faculty of Arts but the whole University of Alberta, are familiar to everyone. That was followed by the Faculty's Dean's Development Council, which introduced many more friends to the University. The Honourary Chair was Harriet Winspear; with co-chairs, Ron Pearson and Jean Agrios with members Esther Ondrack, Margaret Andrekson and the late Elinor Bentley, daughter of the late President Walter H. Johns. On the occasion of the cheque presentation for the $1 million donation from Dr. Francis Winspear, we wanted to do something extra special in recognition of such a generous donation. We decided on champagne and orange juice and home made muffins. Now my orange muffins recipe has been renamed "The Million Dollar Muffins". I am humbled to have had the pleasure to deal with such warm, caring, generous and respected people.

Throughout the years I have helped and witnessed many undergraduate and graduate students' convocations, including those of brother, sister, in-laws, nephews, nieces, cousins, friends and children of friends, (goodness, how that dates me!) but the most memorable was my daughter's presentation of her BA (Honours) thesis at Rutherford House and her Convocation.

The reason for this note to Folio is that I have declined the traditional retirement party for several reasons. (One friend teased me by saying that there isn't a venue large enough.) The actual reason is a selfish one. Most of you are aware that last year at this time my husband was very ill. This February my young sister courageously donated her kidney to her husband (both alumni). The operation was successful and they are recuperating in Vancouver and, hopefully soon, will be returning to their home in Nelson, B.C. These events were traumatic and I'm too emotional to face all my good friends at once. Many of you have already spoiled me with lunches and gifts. You know who you are and you will continue to be very special to me.

Richard Cairney

From University Hall to the 'Sociolgy shack' to the Tory Building, Rosetta Bossio has seen many changes on campus since her arrival in 1965.

I shall miss the Chairs, APOs and support staff of our vast Faculty who have always responded quickly and professionally to the multitude of requests for scheduling meetings and providing information, as well as the President and Vice-Presidents, Deans' Office and the university as a whole community.

Special thanks to my coffee and lunch clique for being there for me through thick and thin and for the many happy hours we spent together — Patti Bobowsky, Stella Chooi, Carol Dimitriou, Diana Hrynchuk, Anna Minarchi, and Linda Robertson. I must also thank my daughter, Emi; son-in-law, Rich; and my husband, Joe for their love and support while making my decision to retire.

Many thanks to *Folio* for allowing me to say goodbye to my friends.

Arrivederci! ■

folio letters
to the editor

You don't need to eat ballots when you're bound by law to vote

Editor, *Folio:*

The Folio article on low voter turnouts (*Folio*, April 4, *Democratic process leaves a bad taste*) highlights a significant difference in approaches to voting taken by Canada and Australia.

In Australia voting is compulsory. Unless one has a valid reason, failure to vote incurs a small fine. Also, in Australia each voter ranks the candidates on the ballot paper (preferential system). Ultimately, every vote (unless the ballot has been spoiled) contributes to deciding between the top two candidates.

Those who view a compulsory voting system as impinging on one's rights might wish to consider whether voting, as part of the democratic process, is more appropriately treated as a responsibility. Having been part of both systems, I prefer compulsory and preferential voting.

Finally, a word of advice to the Edible Ballot Society: If you are really serious about working to improve representative democracy, focus your attention on the ways in which candidates are selected to be on a ballot.

Dr. Oleh Lukomskyj
BA ('69) MA ('74)
Canberra, Australia

folio letters
to the editor

Folio welcomes letters to the editor. Send your thoughts and opinions via e-mail to richard.cairney@ualberta.ca, fax at 492-2997, or by mail to Folio, Office of Public Affairs, 6th Floor General Services Building, Edmonton, Alberta T6G 2H1. Letters may be edited for grammar, style, accuracy and length.

Engineering receives $1-million boost

EnCana Corporation contributes to NREF

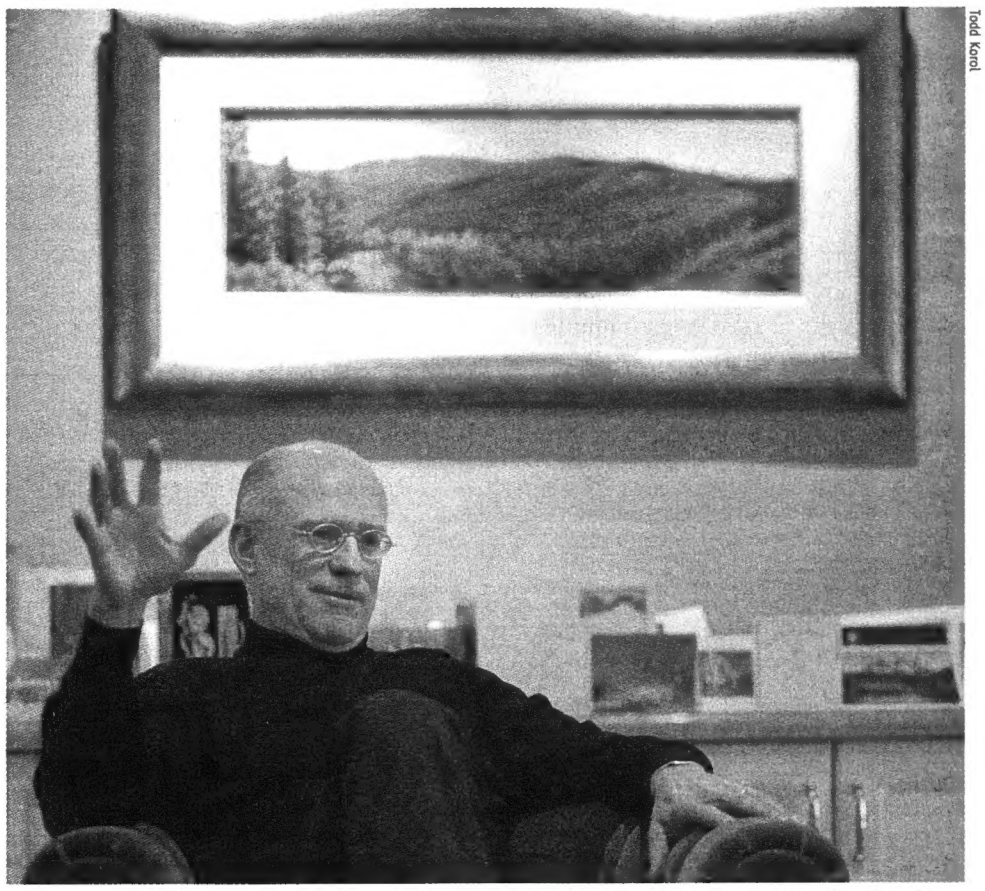
By **Sherrell Steele**

A $1-million donation from EnCana Corporation will be used to create the EnCana Natural Resources Engineering Learning Common in the new Markin/CNRL Natural Resources Engineering Facility (NREF) at the University of Alberta.

This pivotal, state-of-the-art area will encompass the north wing of the pedway-level (second floor above grade) of the NREF – an important part of the growing Faculty of Engineering district on the U of A campus. The $65-million facility is currently under construction. The EnCana Common will house two computer laboratories, two design laboratories, one classroom, and a student workspace.

Located next to the new Electrical Computer Engineering Research Facility (ECERF) on the northwest side of campus, the NREF building will create 30,000 square metres of new space for the faculty, including 14 classrooms, 16 undergraduate labs and 84 research labs. It will be geared towards all areas of natural resource development, including petroleum, mining, environmental, geotechnical, water resources, structural and construction engineering.

It will be designed to meet increasing demand for graduates and research in programs related to natural resource development. Prior to the recent opening of the new ECERF and the Engineering Teaching and Learning Complex (ETLC), the most recent Engineering building to be constructed was the Mechanical Engineering Building in 1972. The Faculty of Engineering is undergoing dramatic growth with $52 million in research funding, a 400-per-cent increase over the past five years. It also has an undergraduate and graduate enrolment of more than 4,000 students. The faculty has grown by more than 65 per cent during the past six years and is one of the fastest-growing engineering schools in North America.



Todd Korol

Gwyn Morgan, CEO and president of EnCana, engineered a $1-million donation to the Faculty of Engineering.

With an enterprise value of approximately $30 billion, EnCana is one of the world's leading independent oil and gas companies.

"As a member of the faculty's alumni myself (Mechanical 1967), I know this donation is going to a quality educational institution that will contribute talented individuals to our workforce," said Gwyn Morgan, president and CEO of EnCana. "Our company is pleased to assist the Faculty of Engineering in providing top quality learning facilities for its students. As a proud Canadian company, we see the EnCana Engineering Learning Common as a place that will inspire students to develop the skills needed to compete head-to-head with the world's best, just as EnCana competes with the world's best."

"The faculty is proud to have EnCana represented in its growing environment, fostering curiosity, creativity, and commitment to learning," said Dr. David Lynch, Dean of Engineering. "These new facilities represent the innovation and energy we like to instill in our students – something EnCana embodies in its preeminence as a respected company in the national and international oil and gas industry."

"We are grateful to EnCana for this contribution to our growing campus," said Dr. Rod Fraser, U of A president. "At the current enrolment level our Faculty of Engineering is in the top five per cent out of over 400 engineering schools in North America. These facilities will help us provide a cutting-edge environment for our students and faculty members." ■

folio letters to the editor

Important daycare issues ignored

Editor, *Folio:*

The Academic Women's Association (AWA) thanks the individuals who have invested so much of their time and energy in the study of the problems related to campus childcare provision. Wendy Saunders, author of the 2001 Housing and Food Services (HFS) Daycare Study, documented the crisis in childcare provision, and the members of the Daycare Advisory Committee (DAC) – representing the various constituencies on campus, as well as the university-affiliated daycare centres – devoted hundreds of hours of research to make further recommendations on this issue. We are, as a result, much further ahead in our knowledge of the problems and of the potential solutions.

We are not, regrettably, much further ahead with regard to implementing solutions. Indeed, the AWA is disappointed with the commitment expressed by the Executive Planning Committee (EPC) of central administration. While the AWA and other bodies represented on the DAC are pleased the EPC agreed to adopt a university childcare policy, we cannot help but view this support as largely rhetorical in light of the concomitant failure to adopt key measures necessary to realize the objectives of the policy.

In addition to adopting a daycare "policy," the administration has agreed to extend its status-quo arrangement with four affiliated day-care centres to a fifth, and has created a Campus Daycare Advisory Committee to oversee the affiliation agreements. It assigns HFS the new job of helping to rationalize the administration of space allocations, without however, appointing a "central administrator" for the day-care centres, as recommended by the DAC report. Apart from these steps, the recommendations of the DAC calling for new funding have not been adopted, and issues considered critical by the DAC have been ignored.

There are two items in the "Quick Facts" column (*Folio* April 4, p. 2) which should not be included in a list of new steps by the administration: the "subsidy" and the "$10,000 contingency fund". As the article by Lee Elliott in the same issue states, the university currently subsidizes rent, utilities, and some maintenance for four affiliated centres. In 2002-2003, the budget for this was $200,000. There was an additional $10,000 fund for emergency capital expenditures. The DAC recommended that this "contingency" fund be increased to $100,000, to help alleviate the financial crisis facing the centres. Instead, the administration has decided to fold the contingency fund into the overall day-care budget, and has informed daycare directors that the total budget for 2003-2004 will be $215,000. Thus, instead of a recommended increase of $90,000, the administration has added only $5,000 to the day-care budget – a budget which is now to be shared among five centres instead of four. It is extremely disappointing that, despite all of the evidence presented by successive studies of the financial crisis underpinning the inadequacies of campus childcare provision, the university administration has been able to find only $5,000 more for childcare.

Childcare workers in the (now) five affiliated day-care centres earn between $8.50 and $11.69 per hour (with very few employees earning at the "high end" of this range) for performing highly qualified and demanding work: overseeing a good part of the early childhood development so critical to the well-being and growth of our children. The individual and societal value of this work has been well documented by researchers in fields represented in this university. The unacceptably low wages of childcare providers is an equity issue for the University of Alberta. First, because the university, as an employer, benefits in many ways from the services provided by these centres, and second, because this under-valuation of care work performed largely by women is symptomatic of the same societal attitudes that other areas of university policy aim to combat. The DAC report called for a remedy of this inequity in a number of its recommendations, but none of these have been adopted by the EPC.

Nor has mention been made, in the Provost's recent statements, of efforts to identify ways of reducing the rising cost of childcare for parents, not even for student parents. The idea of bursaries for student parents, suggested earlier by Dr. Owram (April 30, 2002 memo to the Chair of the DAC) and supported by the DAC, appears to have been abandoned. The Folio article indicated that there will be no consideration of a daycare benefit for faculty or support staff, and the Provost insists that the costs of childcare will continue to be borne by parents alone. Parents' fees are simply an insufficient source of revenue for the centres; the cost of quality childcare requires institutional support.

Finally, without additional monies from the university, it is unclear how the critical shortage of spaces for children of employees and students will be reduced. The DAC's research showed that 100 new spaces are needed immediately, and that capacity must increase by 70 per cent by 2010 (over 2002 capacity) in order to accommodate projected demand.

The need for a serious administrative response stems not only from the issues of faculty retention and recruitment; available, high-quality childcare is important for workforce productivity and well-being, as numerous studies have documented. Moreover, the university's core purpose is education, and this includes a commitment to early childhood education.

More fundamentally, we believe that the under-funding of childcare reflects and perpetuates serious inequities within and beyond the university community. The parenting/career trade-offs particularly (though not exclusively) affecting women are exacerbated by the unavailability of high-quality, affordable childcare. Certain groups on this campus cannot afford daycare at all, given the current parent fees. These include many international students who are no longer eligible to receive provincial childcare subsidies. The important work of those who educate our children is grossly under-remunerated. Until these inequities are addressed, the AWA's daycare file remains open and active.

Laurie Adkin, Associate Professor
AWA Daycare Liaison elect
(2003-2004)

An endless stream of applications

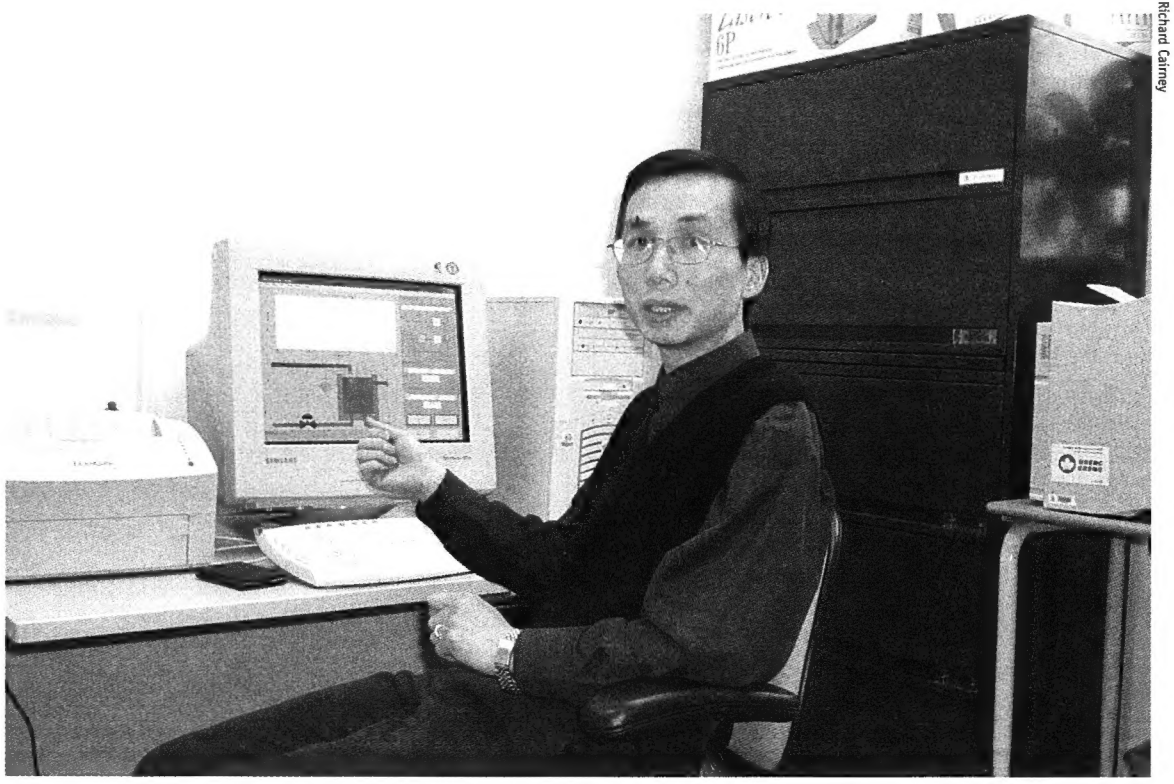
Automation research could help control greenhouse gas emissions

By **Dave Alexander**

Research conducted by Dr. Biao Huang in the University of Alberta Department of Chemical and Materials Engineering may have the most immediate results for a major issue facing oil and gas companies. The associate professor conducts process control research, which is integral for industry to comply with the Kyoto Protocol.

"When we're talking about control, really, it's easier to understand as 'automation,'" said Huang, describing the practical application of his work in controlling emissions. "All this stuff needs automations to ensure the process works properly, and not exceed the limits that it can tolerate. ... A simple example is when you put your car on cruise control. You want to maintain the speed without violating the speed limit.

"At the time when we have the Kyoto Protocol we need to protect the environment and reduce energy consumption. Automation plays an important role. You need to have better quality control to ensure production will be safe and the impact on the environment will be small," he said, adding that one of the major challenges of meeting that goal is maintaining the rate and the quality of production while cutting emissions.



Richard Cairney

Dr. Biao Huang has earned a Petro-Canada Young Innovator Award.

> "At the time when we have the Kyoto Protocol we need to protect the environment and reduce energy consumption. Automation plays an important role. You need to have better quality control to ensure production will be safe and the impact on the environment will be small."
>
> – Dr. Biao Huang

Long before coming to the U of A to start a doctorate in Process Control, Huang secured his Masters Degree of Science in Automatic Control at the Beijing University of Aeronautics and Astronautics in 1986. It was there that he followed up on a pastime that captured his interest when he was a boy. "Even when I was a little kid I was thinking automation. As a boy I liked to make paper airplanes, that was my hobby. I would think 'How can you make this airplane stay in the air for quite some time? How could you manoeuvre it? How could you use automated control or remote control on it?'"

Huang followed up his time in Beijing with a full-time faculty position at the Beijing Institute of Technology. During his seven years there he helped spearhead the development of a Land Vehicle Navigation System. The successful prototype was built before he left in 1992, and is now in use commercially.

"It's based on the inertia technology and GPS (Global Positioning Satellite System)," he explained. "Suppose you want to have a vehicle that travels along a road without clear directions. You need to have some kind of guidance in the car to drive, but you do not know what direction to go or the location of the vehicle, so you need to have equipment that can tell which direction the vehicle is going towards and where its destination is."

Huang says the similar technology has been developed successfully in many countries throughout the world. He also says the future of it is in innovations such as automated vehicles that drive up and down city streets to construct extremely accurate maps, or even something you might see in The Jetsons, like machines delivering newspapers door-to-door.

As Huang's work shifted away from automation in aeronautics and astronautics he came to realize that it was only a small leap to apply what he knew to industrial problems. Before long he migrated west to Edmonton to begin his PhD in Process Control, where the applications are endless in an industry-heavy province.

"We left for Edmonton, and at first we thought Edmonton was really quiet. Initially we felt lonely and it was cold in the winter, but after a few years we found Edmonton was a great place to live and to work. The people here are very friendly, the environment is very good.. We're used to this quiet location now. If we went to some noisy space it wouldn't feel very comfortable anymore. One of the most important reasons to live here is that you can have a lot of focus on your research without too much noise outside."

This focus has resulted in a book, 43 refereed journals and 23 refereed papers in conference proceedings, delivering 19 conference presentations, and spending countless hours mentoring graduate students. In fact, Huang figures that about 60 per cent of his work time is spent teaching or mentoring others. The way he sees it, the best way to excel is to nurture other people's fascinations.

"Whenever a student starts working on a project I tell them to read other people's work and respect other people's work," he said. "The thing about so many people working before is that's the way to progress with confidence: to understand other people's work. That way we stand on the shoulders of giants."

Not a bad place to be for a guy who started by playing with paper planes.■

Prof explores memory faculties

By **Stephen Osadetz**

One downside to mankind's ever-increasing lifespan is that conditions such as Alzheimer's disease, a progressive degeneration of the brain, become more and more of a concern. It's a fact of life: the older you get, the worse your memory becomes. One neurophysiologist in the University of Alberta Department of Psychology, Dr. Clayton Dickson, is working hard to get to the root, not only of this disease, but also, more importantly, of how memory works.

Dickson, who receives funding from the Natural Science and Engineering Research Council of Canada, as well as being an Alberta Heritage Medical Scholar, focuses his research on the parahippocampus, a collection of neurons that lies inside the temporal lobe, beneath the temple of the skull. "In the very earliest stages of Alzheimer's disease, it's the cells in the parahippocampal region that appear to be targeted," Dickson said. Basically, the parahippocampus sends sensory information from the other neocortical lobes of the brain to the hippocampus, where it is stored as memory.

Alzheimer's disease specifically targets those parahippocampal relay cells that send information from the neocortex to the hippocampus. This leads Dickson to think that the initial memory loss associated with Alzheimer's disease may be due to the fact that this important connection has been cut. To test this hypothesis, Dickson is working towards an experiment that will specifically destroy these relay cells, replicating the effect of Alzheimer's, to show that the loss of memory is due to parahippocampal degeneration.

But to really understand how Alzheimer's affects the neural region, Dickson needs to know all the subtleties of parahippocampal function – it's much more than a simple relay. In addition, the parahippocampus can actually modulate the formation of memory, make memories effectively stronger or weaker, according to a person's state of consciousness. For example, we tend to remember things better when we're shocked or afraid than when we're almost asleep.

"Let's say I've just seen the World Trade Centers collapse," Dickson said. "I'm being presented with a lot of information, and I'm agitated, so I can actually recall this information better, especially when I'm in that same state."

To make matters still more complicated for Dickson, the parahippocampus's state-dependant contribution to memory formation is itself dependant on more global co-ordination of these states. Dickson compares this neural co-ordination to that of a symphony without a conductor. Without a single cell to wave a neural baton, the nervous system generates its own rhythms that individual cells can effectively listen in on to play their proper part. Understanding the function of the parahippocampus depends on also understanding the symphony's general tune.

Stephen Osadetz

Dr. Clayton Dickson is trying to get at the root of memory in order to understand Alzheimer's disease.

"What I am working towards is a model of what the neural structures are doing differently between different states," Dickson said. "Hopefully from this we can figure out the actual role of parahippocampal structures in memory formation, and how different states of consciousness may influence memory formation itself."■

Biding his time

Dennis Hall applies patience in research and teaching

By **Dave Alexander**

University of Alberta Chemistry professor Dr. Dennis Hall knows a thing or two about being patient. The Petro-Canada Young Innovator Award recipient applies the virtue to both his research and his favourite hobby.

"Aside from chemistry, one of my passions is wine," he said. "I've started a cellar and I age wine. It requires patience." He recently built the cellar in the corner of his basement so his bottles can mature in a cool, humid place. It's one of the few things Hall has time for outside of his work in the Chemistry Department, where he puts in long days, supplemented by take-home work.

"I know some of my colleagues, I should not mention names, could not keep a bottle of wine in their basement for five years," he jokes. "They would drink it within days. You have to resist the temptation."

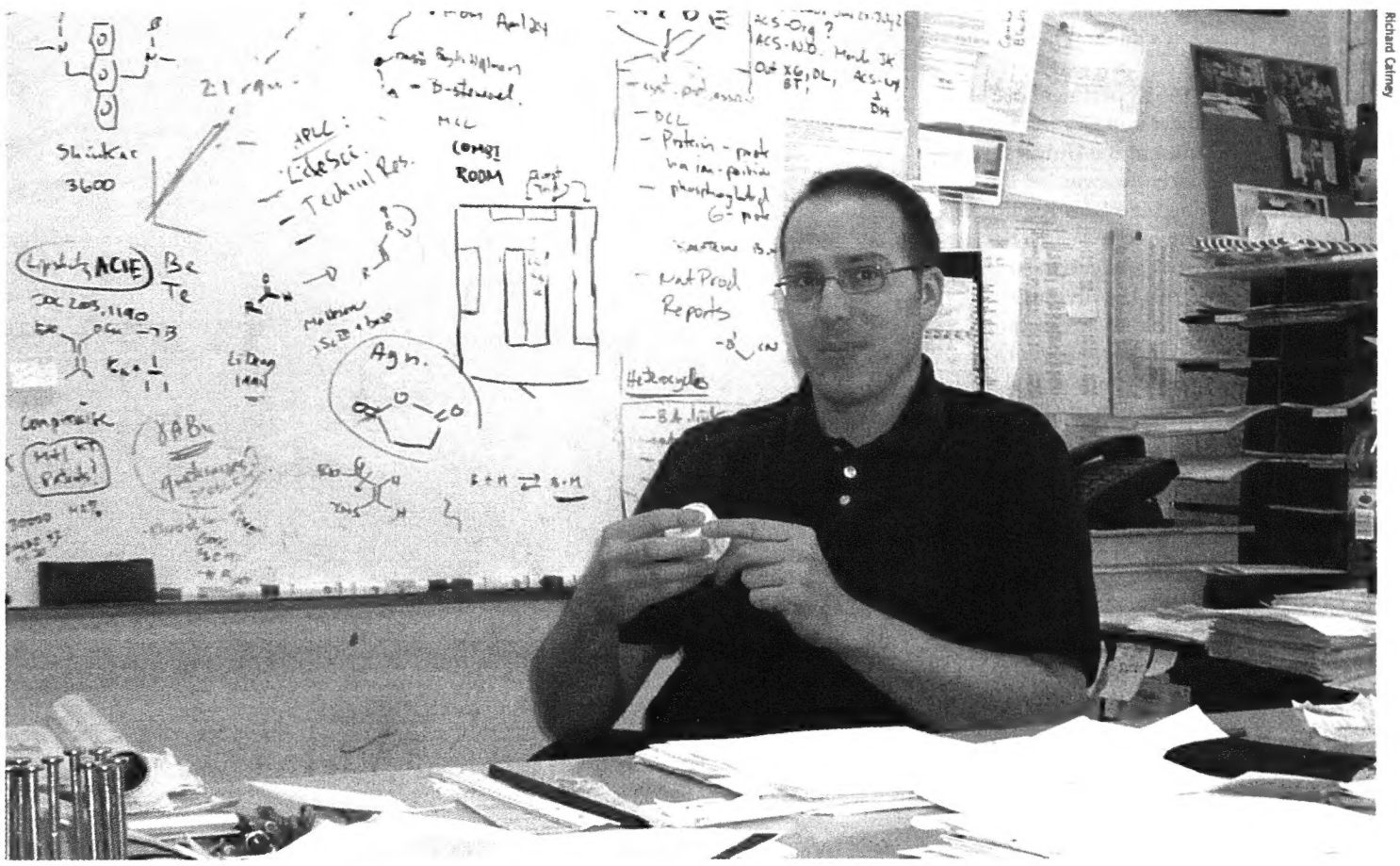
> "There are really two type of sciences: those where you transform matter, and those where you observe matter. I really like the idea of transforming matter, where you make new compounds with tailored properties."
>
> – Dr. Dennis Hall

Hall also relies on that patience in his field of combinatorial chemistry. It's a specialization that develops new strategies and methods to synthesize and analyze a large number of compounds rapidly. Through it, Hall has been trying to help in the fight against diabetes.

Specifically, his lab has created libraries, collections of molecules, of thousands of polyboronic acids, which will be used to discover molecules capable of binding to sugar and accurately measuring glucose concentrations under physiological conditions. It's hoped that the eventual outcome will be some sort of an insulin-pump implant that could monitor and regulate blood sugar levels without requiring daily blood tests and injections for diabetics.

"We're using combinatorial chemistry because it's difficult to predict which molecule will be the perfect one," he explained. Synthetic molecules that bind to sugars in water are extremely rare, so Hall and his lab team have been diligently cataloging the possibilities for further research.

"We're also interested in polyamines. Synthetic polyamines could be used as anti-cancer agents, they could be used as gene delivery agents, they have multiple applications," he said. "Nature only makes three or four polyamines, but one of my graduate students made a library of 5,000 different ones in three weeks. That gives you an idea of how combinatorial chemistry can be powerful."



Richard Calmey

Dr. Dennis Hall is reaping the rewards of hard work, dedication and calculated risks. He has recently been awarded the Petro-Canada Young Innovator Award.

When Hall first started on his doctorate, his field didn't really even exist yet. After earning his PhD in Organic Chemistry from the Université de Sherbrooke, he did his post-doctoral work at the University of California, Berkeley, where he found his niche in a fresh area of study.

"In Berkeley, I prepared for a faculty position, but I didn't want to initiate a research program that would be a continuation of my PhD. I really wanted to do something new," he said. "At that time, in 1995, the really hot new thing in chemistry was combinatorial chemistry."

The risk paid off. After five years at the U of A an at the age of 35, one of his inventions, a chemical used in handling boronic acids, has been commercialized. He has been appointed to the editorial advisory board for the Journal of Combinatorial Chemistry, published by the American Chemical Society. And now he has earned the Petro-Canada Young Innovator Award.

Synthetic chemistry has also given Hall the hands-on involvement that he craves while doing research.

"There are really two type of sciences: those where you transform matter, and those where you observe matter. I really like the idea of transforming matter, where you make new compounds with tailored properties."

Hall says it was tough for him to accept that he wouldn't be involved in the hands-on lab work once he had his own group of about a dozen graduate students and postdoctoral assistants to supervise and guide. "The days that I would not do lab work, I felt that I had accomplished nothing."

He got over it, though, and learned to rely on his team.

"I'm really fortunate. I have very good graduate students. They are as good as I am in the lab. Actually – but don't tell them this – they're probably better than me. I must be very rusty. I'm sure if I were to do experiments I would probably drop flasks," he laughs.

Hall doesn't mind if his students make a few slip-ups though, because the way he sees it, the patience with which he conducts his research must be applied to his students in order for them to develop properly.

"You have to accept that scientific productivity may not be as high as you want because your students have to make mistakes to learn. .... For example, it's faster for me to write a paper than for any of my graduate students to do it, but they have to learn these things, and it can be time consuming."

Luckily, Hall has no problem at all putting in the hours. He says if he's not at work or helping his wife raise their two young daughters, he's examining a PhD thesis or reviewing a grant application. Even when he intends to do some recreational reading he admits he always manages to find a chemistry paper to bury himself in.

So it makes perfect sense for a guy like Hall to have a low-maintenance hobby requiring plenty of patience. With his schedule it's a snap to resist uncorking a bottle of wine before its time.

"If you age wine, you have to give it time," he muses. "It's kind of like training a graduate student. If you provide the right conditions to let graduate students mature for five years, they will reach their maximum potential."■

Human sciences researchers celebrate $3.4 million

Funds will support wide variety of research

By **Ryan Smith**

Forty-nine researchers working on 40 research projects at the University of Alberta have been awarded a total of $3.4 million from the Social Sciences and Humanities Research Council of Canada (SSHRC).

"I'm over the moon that SSHRC would deem my line of research worthy of its continued support," said Dr. Heidi Julien, who studies the role of Canadian public libraries in developing information literacy skills among Canadians.

Information literacy skills are required to access information effectively and efficiently, Julien said, adding that most people grossly overestimate their own abilities in this area.

"Most people are not effective at finding the information they need. And when they find information, they have difficulty in properly evaluating what they've found," said Julien, a library and information studies professor at the U of A.

> "This success continues a trend of growing strength in our already strong social sciences and humanities programs at the U of A. It's something our office is very excited about."
>
> –Dr. Paul Sorenson

Through her research Julien hopes to determine what the response has been in Canadian public libraries to the federal "Connecting Canadians" announcement in the early 1990s, which cited public libraries as resources for helping Canadians develop their information literacy skills.

Other U of A projects to receive support in this round of SSHRC funding include studies on the writing of Iranian women, fees charged to use automated teller machines, and children in the midst of armed conflicts.

"It's great news to see we have done so well in this round of funding," said Dr. Paul Sorenson, associate vice-president (research) at the U of A. "I understand we had a 45 per cent rate of success in our applications, which is above the national average of 41 per cent.

"This success continues a trend of growing strength in our already strong social sciences and humanities programs at the U of A," Sorenson added. "It's something our office is very excited about."

The $3.4 million coming to the U of A is part of $6 million awarded to research projects in Alberta, and $73 million across Canada.

"The world we live in is very different from the one in which most of us were born," said SSRHC president Marc Renaud. "To succeed in this fast-forward world, we have no choice but to adapt to constant change. The projects announced today will develop the strategies our schools, businesses, and communities need to keep pace with this change." ■

Business prof goes beyond the books

Stan Li examines how relationships affect transactions

By **Dave Alexander**

Stan Li is all for mixing business with pleasure. In fact, it's integral to what he studies.

A professor in the Department of Strategic Management and Organization at the School of Business at the University of Alberta who was recently awarded the Petro-Canada Young Innovator Award, Li has gained recognition for research that applies social network analysis to strategic management concerns. His investigations focus on the critical role of "social capital" (the network of inter-firm connections in business transactions) to the survival of companies, the examination of alliance strategies amongst firms, and the effects of networking among firms in the same industry. His work has been heralded for taking innovative approaches to applying formerly separate theories to issues of diversification and multi-market contact. In other words, Li wants to know what makes people tick in the economic world.

"When I was a kid I was always fascinated by business circles," said Li. "I knew that even as a kid I wanted a career related to business. I have a strong interest to find out why people buy stuff and sell stuff, what makes them provide potential services to customers. From a very young age it was just a fascinating puzzle for me to figure out.

"I never really branched out into other areas like Arts and Humanities. ... My father once asked me to major in mathematics because he had some misconstrued ideas about the superiority of hard sciences for soft sciences. I refused his request and became a student at a business school. I never regretted it for a single moment."

After attending Shanghai Jiaotong University in his homeland of China, Li worked at two Asian securities firms. His role was to place shares from the two stock exchanges in China, one in Hong Kong and one in Taiwan, for clients in Singapore. It was here that he first noticed these activities actually revolved around social networks. The social networks between businesses were actually key in determining the flow of assets. It was an important component of his work but had never been taught to him in school.

Richard Cairney

Dr. Stan Li's research focuses on the role of "social capital", the network of inter-firm connections in business transactions, in the survival of companies.

He became fascinated with the influence these seldom-considered forces had on the way companies list their shares on the stock market. At the same time, he also became disillusioned with his job.

"Six years ago I became extremely bored working in a securities firm for two reasons," he said. "The first reason is that I felt there was no challenge in my work at all at that time. I was doing the same routine day after day.

"The second reason that made me switch from the industry to the academic circle was that I found out that the finance theory I learned in my Master's degree – I got my Master's degree in Financial Analysis – actually did not apply at all in my job as an investment banker. I was extremely puzzled and disappointed by this fact. I wanted to find out why I couldn't apply the knowledge I learned in my textbook to my big activities. Is there some gap in the finance field that we never uncovered?"

He decided that, to answer this question, he'd need to become a researcher. After moving to Britain to earn his Master's Degree in Financial Analysis at the University of Stirling, he went to the University of Toronto and earned a PhD in Strategic and Organizational Theory. Then he came to the U of A to combine his real-world working experience with textbook theory to properly equip Business students for the job market.

"At the beginning of each semester I bombard my students with the idea that what you learn in the textbooks, from my own experience, you cannot directly apply to your future job at all," he said.

"They're shocked, and some even protest that they pay big bucks to the business schools, and they learn something so in flux, so they're disappointed, but eventually what they realize is that what they learn is a discipline of social science."

It seems that Li just can't separate the social aspects from business, nor does he want to. His favourite pastime is shopping because it's "the perfect mental and physical exercise" for him. Edmonton also offers the best place to mix business with pleasure – a giant, attraction-filled shopping mall.

Li says it's the ideal place for him to indulge his interest in discovering the social aspects of commerce. "I quite like West Edmonton Mall. It sounds weird but that's the way I was brought up – in those huge cities, which are extremely crowded without much green space. Commercialism was everywhere, in every corner of the streets.

"Thinking about those things while I'm shopping makes me happy. I always combine my research with my daily observations. There are so many clothes stores in West Edmonton Mall, but why does this one work and that one not work? Who are they targeting? Why do they have different kinds of sales in different seasons? What's the logic?"

It's that kind of questioning that has Stan Li taking the concept of the "smart shopper" to a whole new level. ■

Tomorrow's technology finer than dust

NINT will help produce new powders

By **Geoff McMaster**

Imagine a powder so fine it's impossible to see individual grains with the naked eye – and you've got a picture of where technology is going in the 21st century.

The University of Alberta has just signed an agreement with a Belgium-based company called Umicore to produce such fine powder, used in everything from high-performance batteries to ultra-hard cutting tools, on the micro and nano scales.

The most pressing application for the powder is to produce micro-electronic components such as capacitors, which are responsible for holding an electronic charge, says Dr. Steven Dew of the U of A Department of Electrical Engineering.

"They're used heavily in advanced batteries," he said. "There are different kinds of powders, but it's all the same principle – the smaller we can make the powder, the higher the capacity."

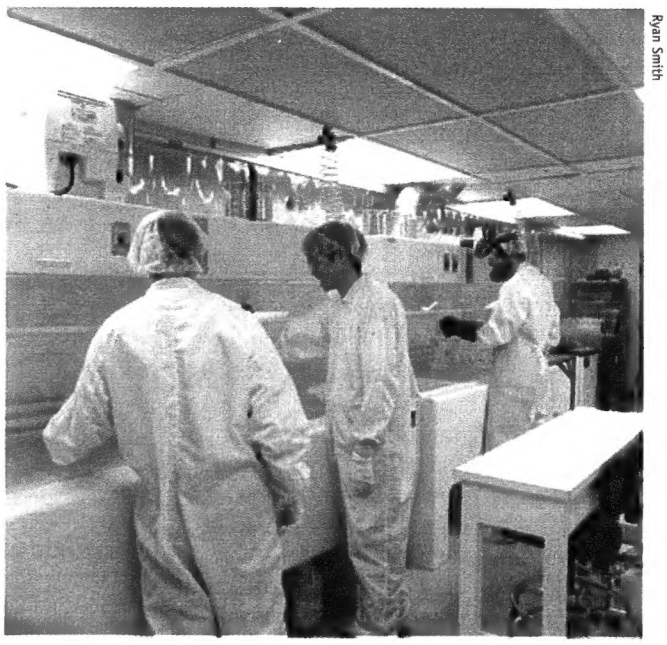
Dew, a facilitator on the project, says the U of A will have four researchers and their support teams working on ways to come up with finer and finer copper powder used to make more efficient, multi-layer ceramic capacitors for third-generation wireless and hand-held devices. Smaller capacitors will eventually lead to smaller electronic devices, such as home-theatre quality movies on wireless handsets and genuine high-fidelity audio on portable music systems.

The U of A/Umicore project, called "Submicron and Nano-sized Powders for Electronic Applications" will also search for ways to prevent these small particles from sticking to one another, a major problem at this scale, says Dew. One grain of this powder is currently at about one micron in size, or anywhere from 1/50 to 1/100 the width of a human hair.

"We're trying to push it down to the nano scale (a thousand times smaller than a micron)," said Dew.

The partnership between the U of A and Umicore began in June 2002 when provincial government representatives met with Umicore executives in Belgium. The agreement was signed on a recent technology mission to Belgium led by Alberta Innovation and Science, which will contribute $150,000 to the university for capital expenses. The total cost of the project is expected to reach $1.5 million, towards which the U of A and Umicore will both provide in-kind and cash investments.

Headquartered in Belgium, Umicore employs 25 scientists and technicians through its Canadian operations in the Edmonton area, the firm's only research and development facility outside of Belgium.



Ryan Smith

A new agreement between NINT and a Belgium-based firm will help develop powers that could lead to production of smaller electronic and wireless devices.

> "They're used heavily in advanced batteries. There are different kinds of powders, but it's all the same principle – the smaller we can make the powder, the higher the capacity."
>
> – Dr. Steven Dew

"Nanotechnology is a major focus for the Faculty of Engineering and the University of Alberta, and we're well on our way to being one of the top nano centres in the world," said Dr. David Lynch, dean of engineering at the U of A. "That's due to this kind of government, university and industry partnership." ■

What we seek, we rarely give

It seems these days that forgiveness is in demand. Why do we reluctantly grant it?

By **Gilbert A. Bouchard**

What could be easier than to forgive and forget?

Yet, the simple truism that's drummed into us from the cradle is a lot easier to preach than it is to practice. Just ask Natalie Maines of the Dixie Chicks.

Even though she apologized for her March 10 comments during a London, England concert in which she said she was embarrassed that US President George W. Bush was a fellow Texan, American country music fans are in no mood to either forgive or forget her passionate if ill-timed words.

So, despite supportive statements from the likes of Bruce Springsteen and Vince Gill, radio stations are still boycotting the former chart-toppers' songs, disgruntled fans have organized Dixie Chicks CD burnings and their anti-war anthem *Travelin' Soldier* dropped like a stone from the Billboard charts as their *Home* CD saw sales of 146,000 copies a week plummet to a meagre 33,000.

Talk about holding a grudge!

Of course, University of Alberta academic Michael Wohl isn't surprised by the ongoing collective pique aimed at the perky, banjo-picking trio. Currently days away from defending a PhD in Social Psychology, Wohl has conducted substantial research in the area of interpersonal conflict and the role forgiveness plays in the overall well-being of groups and individuals and knows all too well that despite the endless lip-service paid to the significant spiritual, social and psychological value of forgiveness, the practice doesn't come easily.

"Journalists interviewing people in the former Yugoslavia often had trouble figuring out if the affronts they were being told about had happened yesterday or 100 years ago," the Winnipeg-born and raised scholar said, underlining the horrific generational impact societal grudges can wield. "It's been said that the past is not only not dead, it's not even past. History is still very much with us."

He also says that despite the universality of the idea of forgiveness in western cultures, studies in the area are relatively new in non-theological/philosophical academic study. The first volume on forgiveness was only published in 2000, says Wohl who recently hosted a standing-room-only U of A Philosopher's Café organized on the subject.

"Psychology comes at forgiveness from a different angle than theology and philosophy. We're looking at it from a descriptive – what is it for? What is the cost? What are the benefits? How do we promote it? – As opposed to prescriptive terms that look at whether forgiveness is right or wrong," he explained.

"My definition is that forgiveness is when you no longer hold negative feelings towards the person or groups that have committed a transgression against you. The question still remains if forgiveness necessitates reconciliation. For example, if you forgive a friend who wronged you, do you have to maintain that friendship or can you say 'I forgive you, but I don't want to hang with you anymore'?"

For Wohl, while unconditional forgiveness might be touted as a cherished societal goal, group and individual apology and subsequent retribution play an enormous role, citing the Truth and Reconciliation process in South Africa as a hallmark example.

Wohl also was part of a US-Canada study looking at certain psychological ramifications of the friendly fire incident that killed four Canadian soldiers in Afghanistan last year.

"When we informed participants that the US government had apologized, people were more willing to forgive the pilots," he said of the power of apology. "Children as young as middle school recognize that an apology is an acknowledgment that a wrong has been committed and are more willing to forgive if it's offered up."

Dr. Elizabeth Spelman, a professor of Philosophy and Women's Studies at Smith College Northampton, Massachusetts and the author of Fruits of Sorrow: Re-framing Our Attention to Suffering is a professional believer in the power of apology, but insists that it can't just be all talk.

Apologies without significant reparations are as meaningless as reparations without apologies, says Spelman who was one of the key speakers at the 2000 Congress of the Social Sciences and Humanities, hosted at the U of A.

"The apologizer needs to recognize that he or she has broken some implicit rule and harmed the other person, done damage," said Spelman. "If the apology is sincere, he or she will then seek to repair the rule, to try to help deal with whatever damage has been done, and to make amends.... It's a question of who gets fixed, what gets fixed, and what doesn't."

While any discussion of lingering resentment and the possibility of forgiveness with or without retribution and apology might seem like rarified talk, it's of vital importance in dealing with burning intergroup grudges plaguing various societies. As a case in point, Wohl cites the ongoing debate about these issues between Israelis and Palestinians, black and white South Africans and between the First Nations and the rest of Canada.

"There is so much pain in the world today that I'd like to understand how we can move past the pain and the hurt, and one way of doing this is through forgiveness," Wohl said. "Refusal can result in rumination on the past hurt which can have negative effects on physical and mental health."

Of course, the challenges posed by encouraging forgiveness have a lot to do with the seductive nature of bearing a grudge. For example, it's pretty tempting to not forgive and forget the trespasses of a spouse or significant other so that you can drag up the transgression and use it against that person in the heat of an argument, says Dr. Tom Oosterhuis with the U of A Christian Reformed Campus Ministry, who attended Wohl's Philosopher's Café.

"Forgiveness involves not remembering, not recalling lists of sins that you keep on repeating against someone else. It's about giving up your entitlement, your claim against that other person and being willing to accept to take the pain of the transgression unto yourself," he said, highlighting the subtle seduction of victimhood that Wohl also touched upon.

"It's certainly a barrier to forgiveness in that victims do get a certain attention, both as individuals and as a group," added Wohl. "It's tempting to identify with the victim role and forgiving does mean giving up those benefits."

As well as the need to encourage the forgiveness of others – individually and as groups – one can't forget that people also need to remember to forgive themselves, says Rev. Richard Reimer with the U of A Lutheran Campus Ministry. Some individuals become "blocked because of guilt" that they can't move beyond, says Reimer, stressing the importance of being able to let go of transgressions.

"Remember that in Latin 'repentance' means to turn around and in Greek it means having a change of mind," said Oosterhuis. "Pain and hurt is a real vicious cycle and forgiveness is needed to stop the spinning of the wheel." ■

Image courtesy Lauri Blank / www.blankstudio.com

In her painting *Garden of Forgiveness*, artist Lauri Blank wanted to communicate a "distinct feeling of peace" that comes with forgiveness. "The power of forgiveness, particularly for one's own soul," she says, "is a freedom which allows peace to embody our spirit."

> "There is so much pain in the world today that I'd like to understand how we can move past the pain and the hurt, and one way of doing this is through forgiveness. Refusal can result in rumination on the past hurt which can have negative effects on physical and mental health."
>
> – Michael Wohl

Business students make the grade on TV

Assignments will be broadcast nationally

By **Ryan Smith**

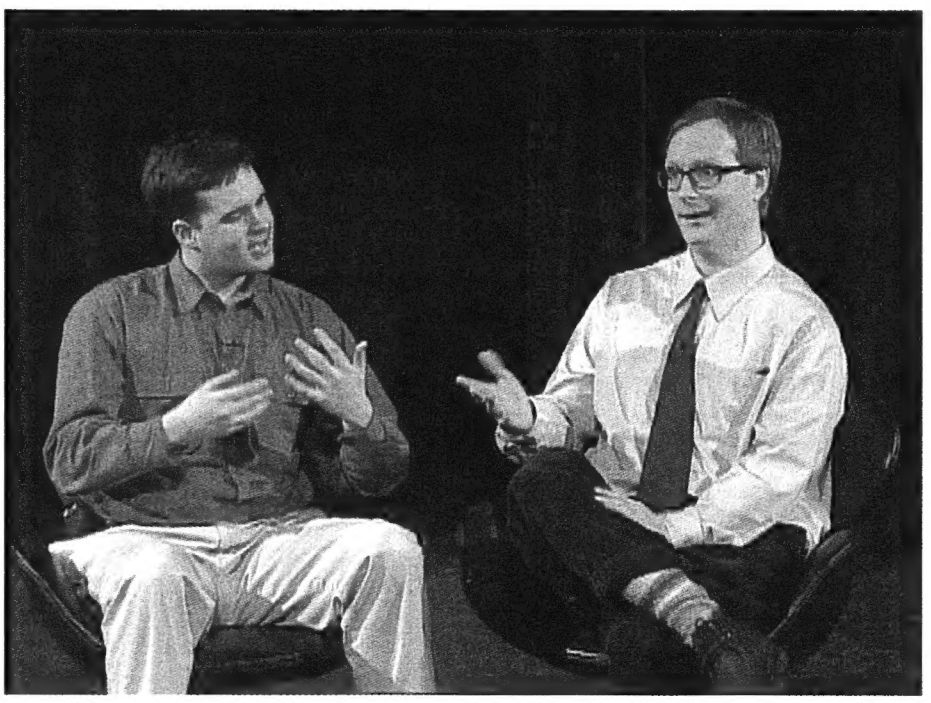
When Robert Nellis enrolled in a University of Alberta business class, little did he know it would lead to a television appearance – and the notion that he might one day host a show of his own.

Nellis was one of eight students out of about 50 in Dr. Stuart McFadyen's Business Economy 470 and 670 classes to present two-minute segments on Canadian Learning Television.

Last year, Access TV approached McFadyen, asking him to prepare some course material to air during broadcasts of *Beggars and Choosers*, a scathing comedy about conniving producers at a fictitious television network. McFadyen asked his students to prepare scripts that would educate the audience about an element of the global business of television and film. All the students then took screen tests, and those who performed the best were invited back to present the best scripts on air.

About 15 to 20 clips were created and shown on TV last year. Using the same approach this year, seven groups of two students produced between three to five clips, which will be aired throughout the year prior to and after the "movie of the week" broadcasts on the Canadian Learning Television. Some of the student segments deal with the movie being broadcast; others focus on the TV and film industry.

"I'm really excited about how this has all worked out," said McFadyen. "Our students have been able to apply what they've learned and make a difference in the community...And some of them are so good on TV that they could have their own shows, just like Siskel and Ebert."



Students Brendan Dery and Robert Nellis chat it up while taping a segment for Canadian Learning Television.

Jesse McLeod, who produced the segments this year for Learning and Skills Television of Alberta, agreed with McFadyen. "Most of the students were really nervous at the start, but it didn't take long for them to become comfortable, and I think we've ended up with some wonderful spots," she said. "I have to praise the students for being so accessible and enthusiastic. We all had a lot of fun working with them."

McLeod explained that CLT requires a learning component with each program, and that's why the U of A educational spots will be shown with the movies.

McFadyen explained that students were graded on the scripts or "talking points" that they prepared for CLT and not on their skills in front of the camera. He added that the segments dealt with issues such as the box office drawing powers of stars and how this affects producers' decisions, as well as the notion of "cultural discount".

"Cultural discount explains why the value or cost of a TV show gets cheaper and cheaper the further it is exported. A US show for example, might sell to the domestic market for $1 million a show, but then only $100,000 a show in France and $200 a show in Burundi. The explanation is that the people of a different culture can't relate as well to the show, the content, music, and pacing, for example, and so it's worth less to them," McFadyen said.

In one segement, Nellis, a PhD student in secondary education, and his TV partner, fourth-year business student Brendan Dery, discussed the idea that film is not a commodity that can be "used up" as food can, for example.

"You can show a film in one place and then use the same film to show it again in another," Nellis explained. "This is really to the advantage of the big Hollywood producers, who have the best levels of funding and therefore can produce a higher quality of films that producers in regional markets can't compete with."

Nellis said the experience of going on TV to impart what he had learned in class "was pretty darn enriching – especially for me because my main focus is on education."

Amid talk that some of the segments were so good that they could spawn a future in television for some of the presenters, Nellis was excited.

"I'd definitely welcome that. We had a lot of fun," he said. "And I think there's a real need for a show about media literacy. People spend a lot of time watching TV and films, but they don't always know what goes on behind the scenes, particularly from a business perspective. I think a show about public literacy would provide a much needed public service." ■

Unfavourable comparisons still benefit e-businesses

Buyers appreciate honesty

By **Phoebe Dey**

New research from the University of Alberta has found that an online business can benefit from facilitating comparisons with its competitors' products, even if some of those comparisons are unfavourable for the firm.

Dr. Gerald Häubl, the Banister Professor of Electronic Commerce at the U of A's School of Business, investigated how digital shopping agents influence the online shopping experience. Surprisingly, he found that when a company lists its competitors' prices of identical products – even if the competitions' prices are lower – shoppers will still tend to buy from the company.

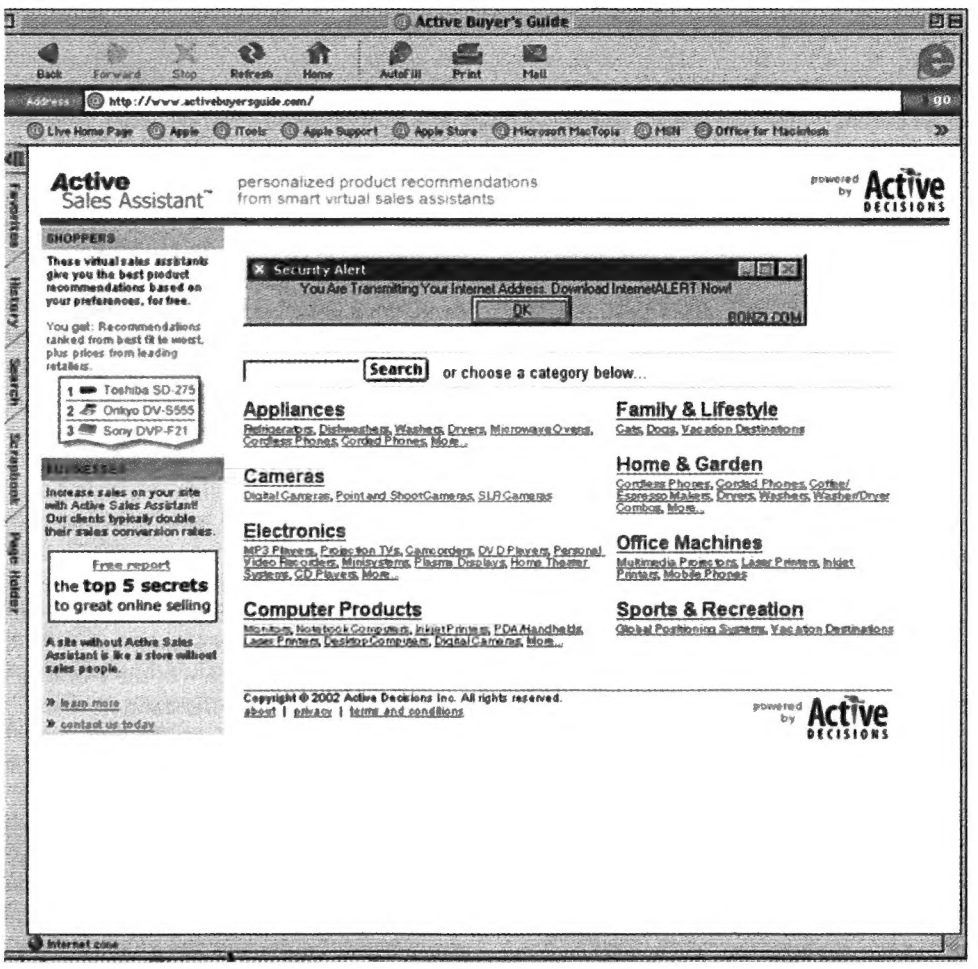
"One reason is that the provision of such access increases the perceived trustworthiness of the firm," said Häubl.

This research, which is published in the *Journal of Consumer Psychology*, is timely considering the rapid growth of electronic commerce.

It specifically examines the role of electronic recommendation agents – software tools that produce personalized product suggestions for shoppers who have input their own preference.

A recommendation agent may either be made available by a particular online vendor, such as Nike's online store, in order to help the customer choose one of the products in its own assortment, or by a third-party provider such as ActiveBuyersGuide.com .

As a result of the growing importance of online shopping, the environments in which consumers make purchase decisions are increasingly artificial, rather than physical in nature. Because of this trend, it is essential to develop a deeper understanding of how consumers construct their preferences in such artificial marketplaces, said Häubl, who works on this program of research with former PhD student Valerie Trifts – now a professor at Dalhousie University – and Kyle Murray, a current PhD student in the U of A's School of Business.



Offering customers price comparisons is beneficial in e-commerce, even if your firm's price isn't the best.

Having access to such large amounts of product information is both a blessing and a curse, said Häubl.

It's a blessing, he says, in the sense that more information allows shoppers to make better choices, but having it is also difficult for people to process.

> "This suggests that electronic decision aids for online shopping can have a powerful influence on consumer choice behaviour in artificial marketplaces,"
>
> – Dr. Gerald Häubl

Although electronic shopping environments are not subject to the space constraints of physical stores, consumers who shop in such artificial marketplaces are nevertheless subjected to the familiar cognitive constraints in terms of their ability to process information, said Häubl. Electronic recommendation agents can play a key role in reducing the amount of information about available products that has to be processed by consumers and helping them make better decisions with limited cognitive effort.

"This suggests that electronic decision aids for online shopping can have a powerful influence on consumer choice behaviour in artificial marketplaces," he said, adding the research also represents a step towards a more complete understanding of consumer decision-making in electronic marketplaces. ■

Research connects linguistic dots

Researcher mapping semantic 'neighbourhoods'

By **Stephen Osadetz**

One curiosity of scientific inquiry is that the most compelling questions are sometimes found in the most peculiar places. Dr. Chris Westbury's interest, for example, is to come up with a way to measure meaning, or semantic value, in language. This problem finds its root in deep dyslexia, a rare form of brain injury that manifests itself as a reading disorder causes people to make semantic errors.

"Meaning is the glue that holds language together," Westbury said. "Ultimately, I want to understand what meaning is, but, of course, meaning is a very slippery concept."

> "Ultimately, I want to understand what meaning is, but, of course, meaning is a very slippery concept."
>
> – Dr. Chris Westbury

A deep dyslexic might make the mistake of reading 'blood' as 'heart'. But what is interesting about this is not what ability is lost by the person, but that something is spared. Deep dyslexics are better off, at least, than people with more extensive damage, who can't read at all.

The consequence, then, is that separate words are more or less semantically close to one another – they have semantic 'neighbourhoods'. But drawing a map of this neighbourhood, Westbury's project, is an enormously difficult task. In contrast, other descriptions of language are relatively easy to come up with. Take spelling, for instance. Similarly spelled words to 'sing', in its orthographic neighbourhood, include 'sang', 'sine', and 'king'.

It's nowhere as easy to describe a semantic neighbourhood. How semantically related, say, is 'Beatles' to 'British' or 'band'? To solve this problem, Westbury measures the co-occurrence of words in a text. He has his computer read a lot of text – 300 million words worth, or the equivalent of 7,500 novels. For each word, the computer creates a 10-word window on either side. Westbury can get a sense of how semantically close a particular word is to 'Beatles' by the amount of times it appears with 'Beatles' within a certain amount of text.

Previous researchers in the area have had their computers read Internet newsgroups, but Westbury wasn't satisfied with this because text is often re-cited in a newsgroup message, which would throw off the information. "With all of the headers, pastes, nonwords, and misspellings," Westbury said, "the data wasn't very reliable." As a solution, Westbury fed online novels from the Web-based Project Gutenberg into his computer, but even the whole project didn't contain enough text, so he also used long Internet news articles and the like.

While there's no hope that describing semantic neighbourhoods could offer a treatment for deep dyslexia – understanding the nature of the condition won't help to reverse it – what Westbury is developing is fundamentally important to our understanding of how language works.

"What interests me is that in language . . . we can take something meaningless and infuse it with a great deal of meaning," Westbury said. "My two-year-old, for instance, can talk about philosophical concepts or things that don't exist. There's something about human beings that escapes from the here and now. When you understand how language can carry meaning, you begin to understand what it is to be human." ■

notices

Please send notices attention Folio, 6th floor General Services Building, University of Alberta, T6G 2H1 or e-mail public.affairs@ualberta.ca. Notices should be received by 3 p.m. one week prior to publication.

SENATE COMMUNITY SERVICE RECOGNITION PROGRAM

The Community Service Recognition Program was established by the Senate Internal Affairs Committee three years ago. While the University of Alberta is indisputably recognized in teaching and research, the committee felt that the many ways the university contributes to community service did not receive the same emphasis. As the role of the Senate is to act as a bridge between the university and the community, we feel that the Community Service Recognition Program is a great way in which to celebrate and strengthen our links to the community.

More than ever, we believe it is important to give thanks and celebration for the efforts and achievements of the university community. For this reason, the Senate is proud to once again acknowledge the impressive volunteer commitments of so many individuals who have given back to their communities locally, nationally and internationally during the year 2002.

In return for their contributions, participants in the Community Service Recognition Program will receive a recognition booklet, which provides statistics and information highlighting the unique involvement of the university family. Each applicant will also be invited to a reception on September 16, 2003 at the Timms Centre for the Arts to recognize the University's service to the community.

There is still time for you to send your application if you have not done so already. The deadline for submitting is June 15th. It's easy! All you have to do is visit the Senate's web site at: www.ualberta.ca/senate and follow the link on the right-hand side to go to the program summary and submission form.

For further information, or to obtain a copy of the application form, please contact Marie-Claude Levert at 492-1357 or levert@ualberta.ca or visit us at 1-50 Assiniboia Hall.

EMPLOYEE PAY INQUIRY (EPI)

One of the major Strategic Initiatives of the University is to move towards enabling staff to have more control over viewing and modifying their personal information. Staff and Student Payments are now phasing in Employee Pay Inquiry (EPI). EPI will enable staff to view their regular pay-advices and to update their address and phone number. This will be done through password-secured access. Other self-service functions will be available in the future.

Currently, several departments are participating, and by December 2003, we anticipate that EPI will be fully implemented across campus. So get ready, we'll be calling you soon. In the meantime, in order to get a head start, please take a look at the EPI User Guide on the Staff and Student Payments web site. The EPI User Guide is available at: http://www.ssp.ualberta.ca/news/EPI/EPI User Guide.doc.

talks & events

Submit talks and events to Cora Doucette by 9 a.m. one week prior to publication**Folio Talks and Events listings will no longer accept submissions via fax, mail, e-mail or phone. Please enter events you'd like to appear in Folio and on ExpressNews at: http://www.expressnews.ualberta.ca/ualberta/L2.cfm?c=10**

UNTIL MAY 10 2003

EXODES: Bachelor of Design Graduation Show 2003 EXODES: Mass Talent is a Bachelor of Design Graduation Exhibition for 2003. The show's opening reception will be held at the Fine Arts Building Gallery on Friday, May 2, 2003, 7:00 to 10:00 p.m. Gallery Hours are Tuesday to Friday, 10:00 a.m. to 5:00 p.m. and Saturday, 2:00 to 5:00 p.m. The Gallery is closed Sundays, Mondays, and statutory holidays. Location: Fine Arts Building Gallery, rm. 1-1 Fine Arts Building, University of Alberta campus, 112 street and 89 avenue, Edmonton.

UNTIL JUN 15 2003

Miscellaneous Connections - Revisited Friends of University Hospital present the artwork of Darren Bertrand, Fiona Connell, Dick Der, Keath Lengle, and Ruby J. Mah. Hours: Monday - Friday 10 a.m. to 8 p.m.; Saturday-Sunday 1 p.m. to 8 p.m. Phone 407-7152 for details. Admission to the Gallery is FREE. Location: McMullen Gallery, 8440-112 St.; East Entrance of the University Hospital.

UNTIL OCT 31 2003

First Aid Training The Office of Environmental Health & Safety has arranged for Standard First Aid/Heartsaver courses to be held on campus once again this year. The training is comprised of two full-day sessions (8:00 a.m. to 4:00 p.m.) with morning, lunch, and afternoon breaks. The cost is $97 per person. The course will be held at the end of October. Registration is limited due to classroom size. For further information and registration forms, please call Cindy Ferris at 492-1810 or e-mail cindy.ferris@ehs.ualberta.ca or visit our home page at http://www.ehs.ualberta.ca Location: various locations on campus and City of Edmonton.

UNTIL OCT 31 2003

Department of Human Ecology 1950s Retrospective Exhibit. 1950s Retrospective is an exhibit created by students from Human Ecology and Art & Design. It includes clothing and household furnishings from the 1950s. Hours: Monday - Friday 8 - 8, Saturday 8 - 4, Sunday 12 - 4. Free Admission. Location: Human Ecology Lobby Gallery, Human Ecology Building.

MAY 02 2003

Department of Physiology Jason Beyea, PhD Student, Department of Physiology, U of A, will present "The embryonic lung is a site of growth hormone production." Time: 3 p.m. Location: 207 HMRC.

1st Annual PHS Research Day Department of Public Health Sciences presents PHS Research Day. Dr. Andreas Laupacis, President & CEO, Institute of Clinical Evaluative Sciences, University of Toronto, will speak on "Health Services Research - Mentorship and Evolution." 9 - 9:30 a.m. Location: Bernard Snell Hall. Website: www.phs.ualberta.ca

PHS Research Day The Department of Public Health Sciences presents: Jeffrey Lozon, President & CEO, St Michael's Hospital, Toronto, speaking on "A View from the Frontlines of SARS: Challenges to Health Policy." 9:30 - 10 a.m. Location: Bernard Snell Hall. Website: www.phs.ualberta.ca

University Teaching Services Writing for Publication: An Alberta ACADRE Network Workshop. Drawing upon the insights and experiences of a researcher, an editor, and a librarian, this workshop focuses on the art and science of writing for publication. In addition to practical writing tips, library searching ideas, and submission strategies, the issues concerning multiple authors, knowledge translation, multiple submissions, and multiple publishing are explored. Presenters: Laura Botsford, Alberta ACADRE Network; Jeanette Buckingham, Libraries; Nancy Gibson, Human Ecology. Time: 9:00 a.m. to 1:00 p.m. Location: CAB 243. Website: www.ualberta.ca/~uts

MAY 04 2003

Japanese Tea Ceremony Devonian Botanic Garden presents tea ceremonies at the Ozawa Pavilion, an authentic Japanese Tea House, set in the tranquil Kurimoto Japanese Garden. Sittings will be held 1:30, 2:15 and 3 p.m. Maximum of four people for 1:30 & 2:15 sitting and a maximum of 20 people for the 3 p.m. sitting. Explanation of the tearoom and tea ceremony will be provided to the public, as well as Japanese sweets and tea powder. Experience this Japanese custom in a unique setting. Cost $5 per person. General admission rates apply, tickets available on a first come basis. Call Visitor Services (780) 987-3054 for further information. Location: 5 km North of Devon, on Hwy 60. Website: www.discoveredmonton.com/devonian

MAY 06 2003

Department of Cell Biology Juliet M. Daniel, PhD, Assistant Professor, Department of Biology, McMaster University. Title of talk: "Roles of the catenin p120ctn and its binding partner Kaiso in Signaling and Cell Adhesion." From 9:30 - 10:30 a.m. Seminar Room 5-10 Medical Sciences Building. Website: www.ualberta.ca/cellbiology

MAY 07 2003

Centre for Health Promotion Studies Centre for Health Promotion Research Seminar Series. Nancy Gibson, Chair of the Department of Human Ecology and Co-Principal Investigator of Alberta ACADRE Network, will present a seminar entitled "Enhancing Capacity: A Model for Research with Aboriginal Communities". This seminar will explore the range of models and techniques for including Aboriginal partners in health research projects, and discuss relevant ethical, protocol and evaluation issues. Everyone welcome to attend. 12 - 1 p.m. Location: Corbett Hall, Room 2-07. Website: www.chps.ualberta.ca

PHS Colloquium & Grand Rounds Dr Colin Soskolne, Professor, will speak on "Top-Down Influences on Ethics and Integrity in Environmental Health Sciences: By What Mechanisms and in Whose Best Interests?" Location: Room 2-117, Clinical Sciences Building. 11:50 a.m. to 12:50 p.m. Website: www.phs.ualberta.ca

MAY 07 - 08 2003

Lecture Series - Cynthia Chambers Lecture Series - Cynthia Chambers. "Things We Carry with Us: A Pilgrimage to Manitow Sákahikan" May 7th, 2 – 4 p.m., room 358 Education South. "Research that Matters: Finding a Path with Heart Without Losing Your Mind" a shorter focused talk followed by a group discussion May 8th, 4:30 – 6:30 p.m., room 367 Education South. Location: 358 and 367 Education South. Website: www.ualberta.ca/~dsegsa/chambers.htm

MAY 07 - 09 2003

The Edward Herbert Boomer Memorial Lectures The 2003 Edward Herbert Boomer Memorial Lectures are the forty-third in a series inaugurated in 1958 to recognize the contributions of Professor E.H. Boomer, who was associated with the Department of Chemistry from 1925 to 1945. Lecture topics: Wednesday, May 7, 4 p.m., V-106 "New Materials from Molecular and Mesoscopic Building Blocks." Thursday, May 8, 11 a.m., V-112 "Nanowires and Self-Assembly: Synthesizing the Computer of the Future." Thursday, May 8, 4 p.m., V-106 "Searching the Periodic Table for Better Catalysts and Electrocatalysts" Friday, May 9, 11 a.m., V-112 "New Chemical Approaches to Environmental Remediation of Soil and Groundwater." All lectures will be held in the Physics V-Wing at the University of Alberta. Location: V-106, V-112, Physics Building. Website: http://www.chem.ualberta.ca/about.htm

MAY 09 2003

Department of Public Health Sciences Environmental Health Sciences Seminar. Dr. Nicola Cherry, Department of Public Health Sciences, will present: "Laboratory Correlates of Male Infertility." 2 p.m. Location: 10-120 CSB.

University Teaching Services Writing for the Social Sciences and the Humanities. Building upon the information shared during the Writing for Publication Workshop, this discipline specific workshop focuses on writing for the Social Sciences and Humanities. Presenters: Laura Botsford, Alberta ACADRE Network; Jeanette Buckingham, Libraries; Nancy Gibson, Human Ecology. Guest Speaker: Susan Smith, History & Classics. Time: 9 a.m. - 12 noon. Location: Human Ecology Room 301. Website: www.ualberta.ca/~uts

MAY 10 - 11 2003

Mother's Day Get Growing Plant Sale Select from a wide variety, often exotic or hard-to-find, hardy perennials or native Alberta wildflowers. Plants are mostly grown by volunteers from seed collected from our numerous plant collections. Orchids (if available), cacti and succulents are also for sale. Held at the Alice McKinnon Horticulture Centre, south of the Japanese Garden. There is no admission fee to attend the plant sale. However, regular admission rates a[[ly to view the garden. Proceeds from the sale contribute to the operation of programs and facilities at the Devonian Botanic Garden. Contact Visitor Services (780) 987-3054 for further information. The event is 10 a.m. - 4 p.m. Location: 5 km north of Devon on Hwy 60. Website: www.discoveredmonton.com/devonian

MAY 12 2003

Open Access Publishing Seminar The

University of Alberta Libraries and BioMedCentral invite you to a seminar on Open Access Publishing. This Open Access Seminar is not just a forum for BioMed Central, but also for the open access movement and its importance for fostering change in scholarly communication. Topics covered will include how open access publishing works, the benefits of open access publishing, the ways in which it improves on the current, traditional model of scientific publishing, and an overview of current open access initiatives. Presenters: Jan Velterop, Publisher, BioMedCentral, Timothy Caulfield, Associate Professor, Faculty of Law/Faculty of Medicine and Dentistry, Terry Klassen, Professor and Chair, Department of Pediatrics,Fred Ziegler, Collections Development Librarian, Humanities and Social Sciences Library, Doug Poff, Associate Director of Libraries, Library Technology Resources and Services. 10 a.m. - 12 p.m. Location: CAB 243. Website: http://www.library.ualberta.ca/openaccess/

MAY 12 - 13 2003

Career and Placement Services (CaPS) Workshops for students of all faculties. We offer Career Decision Making Strategies on the 12th; and Resume Writing and Interview Skills on the 13th. Pre-register for all workshops today at CaPS, 2-100 SUB. Location: CaPS classroom; 4-02 SUB. Website: www.ualberta.ca/caps

MAY 13 2003

University Teaching Services Writing for Science. Building upon the information shared during the Writing for Publication workshop held in early May, this discipline specific workshop focuses on writing for Science. Presenters: Laura Botsford, Alberta ACADRE Network; Jeanette Buckingham, Libraries; Nancy Gibson, Human Ecology. Guest Speaker: John Spence, Renewable Resources. Time: 9 a.m. - 12 noon. Location: CAB 243. Website: www.ualberta.ca/~uts

MAY 14 2003

PHS Colloquium & Grand Rounds The Department of Public Health Sciences presents: Mary Vanderkop, MSc Student, who will speak on "Campylobacter jejuni in Slaughter and Retail Chicken." 11:50 a.m. - 12:50 p.m. Location: Room 2-117, Clinical Sciences Building. Website: www.phs.ualberta.ca

Department of Music Doctor of Music Recital. Magdalena Adamek, piano. Free admission. Convocation Hall, Arts Building. 8 p.m.

Career and Placement Services (CaPS) Writing an Effective CV and Cover Letter. Please note: Other grad workshops run in June & July. Pre-register for all workshops at CaPS, 2-100 SUB, today! Location: CaPS classroom; 4-02 SUB. Website: www.ualberta.ca/caps

MAY 14 - 22 2003

Career and Placement Services (CaPS) Free Brown Bag Lunch Seminars. Let us give you food for thought on a number of career related topics. These free seminars are held over the noon hours at CaPS. Pre-registration is not required. Location: CaPS, 2-100 SUB. Website: www.ualberta.ca/caps

MAY 15 - 24 2003

University of Alberta Studio Theatre My Mother Never Said I Should, May 15-24, 2003; Preview May 14; Matinee May 22, 12:30 p.m. All shows at 8 p.m. Directed by MFA (Directing) candidate Marianne Copithorne, the tale of four generations of women throughout twentieth century England and the secret that could tear them apart. Call the Box Office at 492 2495. Location: Timms Centre for the Arts. Running February to June. Website: ualberta.ca/drama/studio

MAY 16 2003

Department of Physiology Fred Loiselle, PhD Student, Department of Physiology, presents: "Sodium bicarbonate cotransporter 3 C-terminal domain: the little domain that could." Time: 3:00 p.m. Location: 207 HMRC.

ads

Ads are charged at $0.65 per word. Minimum charge: $6.50. All advertisements must be paid for in full by cash or cheque at the time of their submission. Bookings may be made by fax or mail provided payment is received by mail prior to the deadline date. Pre-paid accounts can be set up for frequent advertisers. Please call 492-2325 for more information.

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CANADA RESEARCH CHAIR IN FUNCTIONAL FOODS AND NUTRACEUTICALS

The University of Alberta invites applicants with outstanding academic and leadership skills in the area of functional foods to apply for a Canada Research Chair (Tier I) in Functional Foods and Nutraceuticals. This new and challenging position in the Department of Agricultural, Food and Nutritional Science offers an exceptional opportunity to play a leadership role in Alberta's emerging bio-based economy.

Alberta, one of the world's most productive agricultural economies, has the strategic vision to expand its value-added agri-food and agri-industrial sector to $20 billion by 2010. The development of functional foods and nutraceuticals will be critical in achieving this vision. The successful candidate, along with two junior researchers and a business development manager, will be part of the newly established Alberta Functional Foods and Nutraceuticals Network. The chair will provide overall scientific direction and coordination of the Network's research programs in functional foods and nutraceuticals, and direct the development and implementation of its vision and strategy. The Network is being established in partnership with AVAC Ltd., Alberta Agriculture, Food and Rural Development, the University of Lethbridge and the Alberta Research Council. The chair will also contribute to undergraduate and graduate teaching. This is a tenure-track appointment at an Associate Professor/Professor level.

Applicants must have a PhD in food science, nutrition or a related area, and extensive research credentials in areas related to functional foods as demonstrated by publications and awards. The candidate will have the vision and proven talent essential to building successful collaborative research programs that cross institutional and disciplinary boundaries and lead to technology commercialization. This dynamic individual must have excellent communication and interpersonal skills, a track record of successful partnering with industry, government and senior representatives of funding and regulatory agencies, and high energy and personal commitment to developing the functional food industry.

The University of Alberta, one of Canada's premier research institutions, offers excellent research facilities and equipment including a new Human Nutrition Research Centre and a soon-to-be built Agri-Food Processing Research Centre. Alberta's strong scientific base and abundant agricultural resources provide a superb foundation for leadership in the emerging functional foods and nutraceuticals industry. Experience in teaching would be an asset.

The Canada Research Chair (CRC) program was established by the Government of Canada to enable Canadian universities to achieve the highest levels of research excellence in the global, knowledge-based economy (http://www.chairs.gc.ca). Tier I Chairs should be recognized by their peers as leaders in their respective research fields.

Applications, including a statement of research interest, curriculum vitae and the name of three referees, should be sent to Dr. John Kennelly, Chair, Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada T6G 2P5. Closing date for applications is May 31, 2003 or until a suitable candidate is found. For further information on this position contact Dr. Kennelly at (780) 492 - 2131 / (780) 492 - 4265 / e-mail: afns-chair@ualberta.ca

ASSISTANT PROFESSOR REPRODUCTIVE PHYSIOLOGY/ DEVELOPMENTAL BIOLOGY (SWINE)

DEPARTMENT OF AGRICULTURAL, FOOD AND NUTRITIONAL SCIENCE

The Department of Agricultural, Food and Nutritional Science (AFNS) at the University of Alberta invites applications for a tenure-track appointment at an assistant professor level in the area of reproductive physiology/developmental biology. The successful candidate will develop an innovative, cutting-edge research and teaching program in this area. The position will be jointly funded through sponsorship from the swine industry, and through funds made available through the appointment of Dr. George Foxcroft as a Canada Research Chair in Swine Reproductive Physiology. The applicant will be expected to be a major contributor to the goals of the Swine Reproduction-Development Program (SRDP), led by Dr. Foxcroft. A proven ability to address research issues important to the pork production industry would be an asset. Substantial technical and operating support will be available to the appointee through the SRDP, but the appointee will also be expected to attract independent support from appropriate federal and provincial funding agencies.

The appointee will be expected to contribute to the department's mission "to achieve excellence in teaching and research in efficient and sustainable production, value-added processing, food safety and human nutrition to improve health and quality of life". Teaching duties will include responsibility for the delivery of undergraduate and graduate teaching in the area of reproductive physiology/developmental biology in domestic animals and birds. Evidence of proven teaching ability is an asset.

The university has excellent on-campus research facilities and equipment, and is rapidly expanding its genomic, proteomic and molecular biology capabilities. An ability to make a contribution to the expansion of the department's expertise in these areas would be an advantage. Opportunities to carry out world-class animal-based research are available in the recently completed Swine Research and Technology Centre on the University's South Campus. This facility includes extensive animal holding facilities, the Intervet Breeding Technology Suite, an AI laboratory, the Genex Reproductive Laboratory Suite (with state-of-the-art equipment of all aspects of cell culture, in vitro fertilization and embryo transfer experimentation), the Pfizer Surgical Suite, and in-house necropsy rooms.

Applications, including a statement of research and teaching interests, curriculum vitae, and the name of three referees should be sent to Dr. John Kennelly, Chair, Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada T6G 2P5. Closing date for applications is May 31, 2003 or until a suitable candidate is found. For further information on this position contact either Dr. Kennelly at (780) 492 - 2131 / (780) 492 - 4265 (fax), e-mail afns-chair@ualberta.ca or Dr. Foxcroft at (780) 492 - 7661, e-mail george.foxcroft@ualberta.ca, or visit our website at www.afns.ualberta.ca.

ASSISTANT/ASSOCIATE PROFESSOR, RUMINANT PHYSIOLOGY

DEPARTMENT OF AGRICULTURAL, FOOD AND NUTRITIONAL SCIENCE

The Department of Agricultural, Food and Nutritional Science at the University of Alberta invites applications for a tenure-track appointment in the area of Ruminant Physiology. This appointment will be made at the Assistant or Associate Professor level and will involve approximately 40 per cent research, 40 per cent teaching and 20 per cent extension.

The appointee will develop a world-class research and teaching program in ruminant physiology with emphasis on cattle. Areas of research may include, but are not limited to, ruminal function, digestive physiology, the regulation of energy, lipid and protein metab-

olism in relation to nutrient utilization/excretion, and quality of meat. Interests in forage and byproduct utilization or interrelationships between nutrition, environmental stress and animal health would be desirable. The successful candidate will be expected to contribute to integrated research programs that promote the overall departmental mission of achieving excellence in teaching and research in efficient and sustainable production, processing and utilization of safe and nutritious food to promote health, within the context of the agri-food industry. Applicants must have an appreciation for the applications of molecular biology, microbiology and immunology in the area of ruminant physiology. The candidate will work cooperatively as a member of research teams within and outside the department. Teaching responsibilities will include courses in undergraduate animal physiology and a graduate course in ruminant physiology. The candidate will possess a PhD in ruminant physiology or metabolism, evidence of excellent research potential, and have an appreciation of cattle production. Demonstrated leadership ability, excellent communication skills and a strong commitment to technology transfer are essential.

The University of Alberta has excellent on-campus research facilities and equipment, including a state-of-the-art Molecular Biology and Biotechnology Centre, numerous specialized analytical laboratories. A Large Animal Metabolic Research Unit is available for detailed studies of ruminant physiology. In addition, a Dairy Research and Technology Centre, a research ranch which includes a herd of 500 beef cows, as well as bison, a 300 head feedlot and a 260-hectare wildlife unit are also available (for further details see www.afns.ualberta.ca).

Applications, including a statement of research and teaching interests and experience, curriculum vitae, and the name of three referees should be sent, to Dr. John Kennelly, Chair, Department of Agricultural, Food, and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada T6G 2P5. Closing date for applications is May 31, 2003 or until a suitable candidate is found. For further information on this position contact Dr. Kennelly at (780) 492 - 2131 / (780) 492 - 4265 (fax), e-mail afns-chair@ualberta.ca or visit our website at www.afns.ualberta.ca.

ASSISTANT/ASSOCIATE PROFESSOR, BIO/FOOD ENGINEERING

DEPARTMENT OF AGRICULTURAL, FOOD AND NUTRITIONAL SCIENCE AND ALBERTA AGRICULTURE, FOOD AND RURAL DEVELOPMENT

The Department of Agricultural, Food and Nutritional Science (AFNS) at the University of Alberta and Alberta Agriculture, Food and Rural Development (AAFRD) invite applications for a joint tenure-track assistant/associate professor position in Bio/Food Engineering as part of an exciting new initiative in bioproducts to meet the research and educational needs of the rapidly growing Agri-Food Industry in Alberta.

The appointee will develop an innovative state-of-the-art basic and applied research program in bioproducts with a focus on biomaterials/industrial products obtained from agricultural commodities, such as biolubricants, biodiesel, composite materials, and personal care items. The candidate is expected to teach both undergraduate and graduate students and develop and maintain an externally funded research program. The appointee must demonstrate desire and ability to deliver a creative, cutting-edge program through individual and collaborative initiatives. Applicants must have a PhD, in a related discipline such as Chemical Engineering, Food Engineering or Food Science, a demonstrated ability to conduct and publish research and to commercialize technical developments. Effective written, oral, teaching, and interpersonal communication skills are essential. As this is a joint position between AFNS and AAFRD (50:50), the successful candidate will be located at the Centre for Agri-Industrial Technology (CAIT) half of the time and is expected to contribute to the technology transfer programs of AAFRD by working closely with the industry, thus industry experience is required.

The successful applicant is expected to develop collaborative research programs with industry and scientists at the University of Alberta, Alberta Agriculture, Food and Rural Development , and Agriculture and Agri-Food Canada. The University of Alberta has excellent on-campus research facilities and equipment, including an Agri-Food Materials Science Centre and numerous specialized analytical laboratories. The Department of AFNS is also currently undertaking a major infrastructure-upgrading program with the support of industry and government. AAFRD has excellent pilot plant processing facilities (Centre for Agri-Industrial Technology and Food Processing Development Centre) for food and industrial products.

Applications, including a statement of research and teaching interests, industry experience, curriculum vitae, and the name of three referees should be sent to Dr. John Kennelly, Chair, Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada T6G 2P5. Closing date for applications is May 31, 2003 or until a suitable candidate is found. For further information on this position contact Dr. Kennelly at (780) 492 - 2131 / (780) 492 - 4265 (fax), e-mail afns-chair@ualberta.ca or visit our www.afns.ualberta.ca or Mr. Ron Pettitt, Director of Processing Division, AAFRD, at (780) 986 – 4793, Fax (780) 986 - 5138, e-mail ron.pettitt@gov.ab.ca, website www.agric.gov.ab.ca

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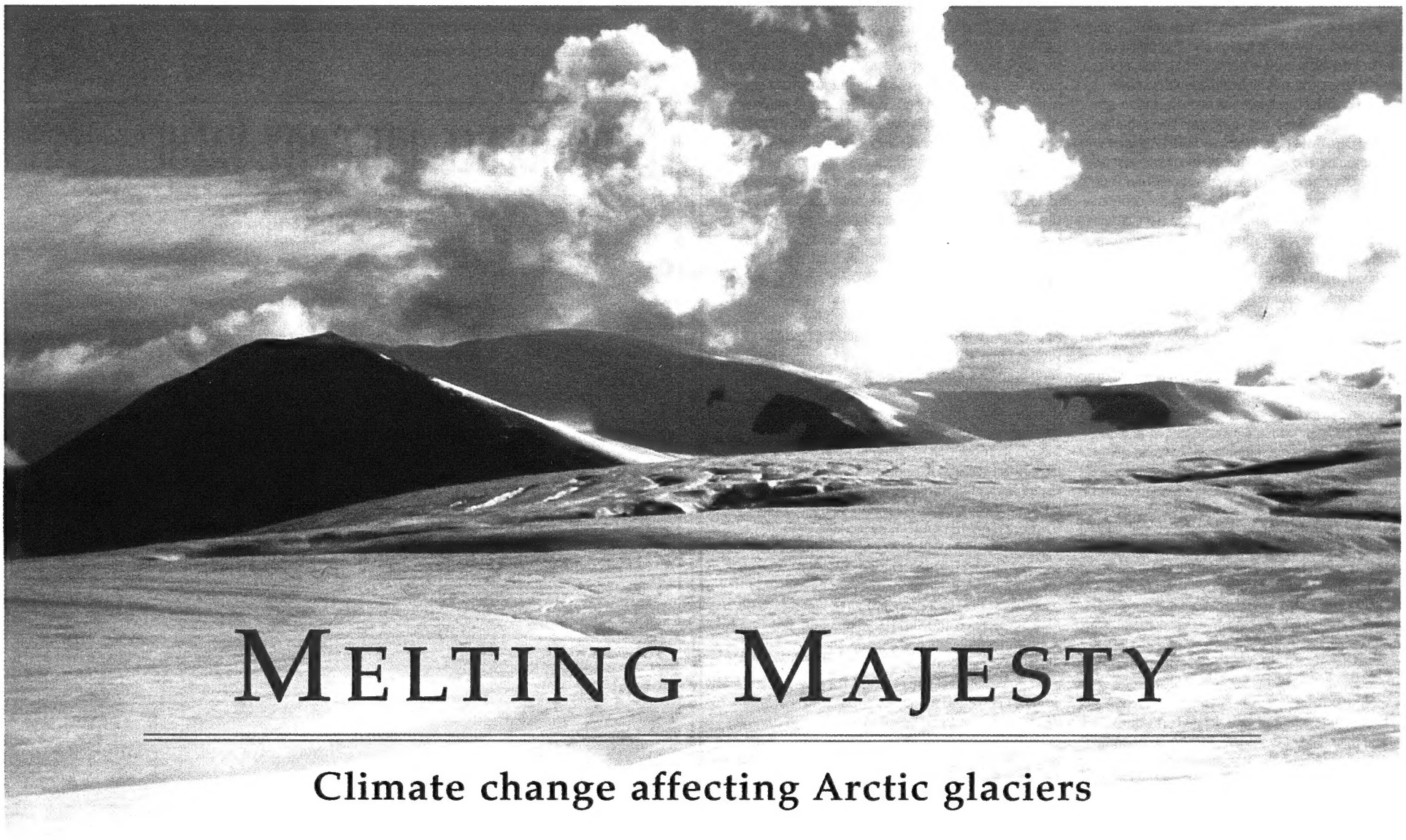
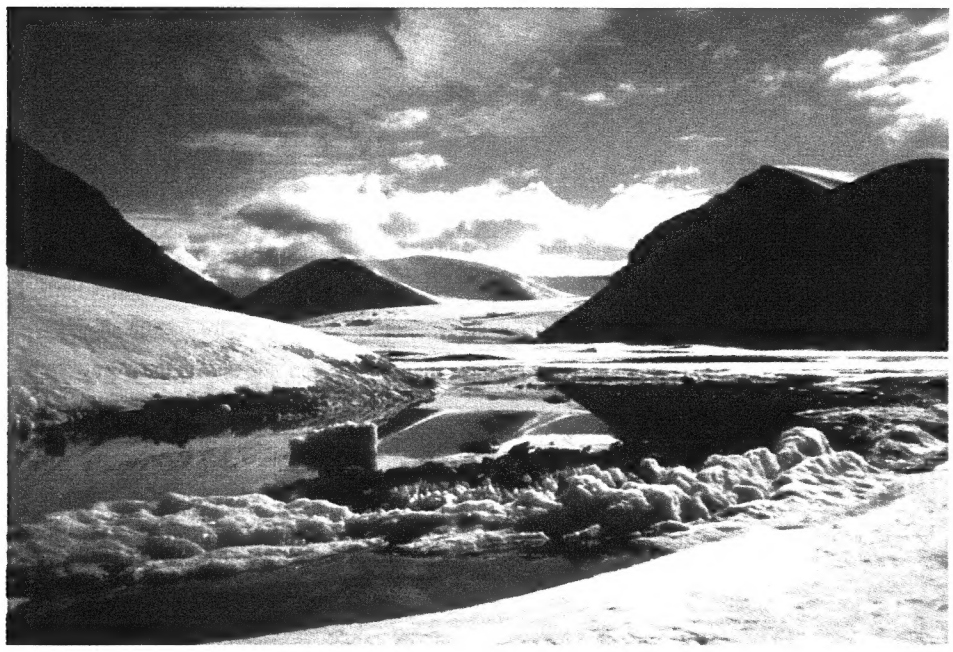


Sarah Boon

MELTING MAJESTY

Climate change affecting Arctic glaciers



Climate change is affecting glaciers in Canada's Arctic. University of Alberta researchers working in the far North are measuring changes in Arctic glaciers, discovering some glaciers are retreating while others, curiously, are advancing.

By **Sarah Boon**

Last spring's spectacular break-up of the Larsen Ice Shelf in Antarctica made international news. Thought to be the result of warmer summers and increased ice melt, approximately 3,300 sq. km of ice, enough to cover roughly half of Prince Edward Island, disintegrated between January and March.

Few Canadians realize that similarly dynamic processes are also occurring in the Canadian Arctic. With the increasing public debate about climate change, research in showing that change is having a noticeable impact on Arctic glaciers.

Many people imagine the Arctic as a flat region of snow-covered tundra. But the eastern Arctic is mountainous and widely glaciated. Dr. Martin Sharp, a Natural Sciences and Engineering Research Council of Canada-funded glaciologist in the University of Alberta Department of Earth and Atmospheric Sciences, has worked in the area since 1994. He and his research group have determined that Arctic glaciers are responding to climate change, but in different ways than predicted.

Sharp's group has shown that the majority of glaciers in the northeastern Arctic retreated between 1959 and 1999, reducing ice extent by 1,860 sq. km. Because this retreat is caused by increased melting during the summer months, and iceberg calving, it translates into a global sea level rise of 1.45 mm. Although it seems minimal, this value represents about 12 per cent of the total sea level rise predicted from glaciers and ice caps worldwide since 1960.

"This research addresses the issue of how humans affect their environment – even in areas very remote from where they live. I think it's a good thing for us to be forced to face up to the consequences of what we do...Rising sea levels are already affecting our coastlines and the people who live along them," said Sharp.

Although most glaciers are retreating, some glaciers are actually advancing. It may sound strange, but it is also a response to climate change. Meltwater at the glacier surface can make its way to the glacier bed and trigger changes in ice flow. The water acts as a lubricant between the glacier and the underlying rock or sediment, causing the ice to speed up and advance. With warmer summers, more meltwater is produced, so glaciers can move faster. A small fraction of glacier advance, however, cannot be attributed to the present climate change – Sharp speculates that a few glaciers may still be responding to climate changes from the Little Ice Age, an event which occurred between about 1300 AD and lasted until 1900.

"The most interesting aspect of this research is knowing something today that you didn't know yesterday – especially when it turns out not to be what you thought you were going to find out," said Sharp, noting that this is just the beginning of work in this area. "I'm not sure we fully see the big picture yet. In fact, I hope we don't because then there'd be nothing left to do."

It looks like Sharp's future holds no shortage of things to do. He plans to extend his present research using a combination of data from CryoSat (a satellite dedicated specifically to glaciological applications), and extensive fieldwork on the Devon ice cap in Canada's Arctic. Sharp is also developing a program using glacier ice core records to study the relationship between climate and sea ice variability in different regions of the Canadian Arctic. Glaciology may even be heading into space. Another of Sharp's research initiatives involves working with NASA to develop and test drilling and chemical measurement technologies that can eventually be used on the Martian polar ice caps. ■

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